



Administrative County of Middlesex.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1932.

LONDON :
HARRISON AND SONS, LTD., ST. MARTIN'S LANE, W.C.2,
Printers in Ordinary to His Majesty.

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*TO THE CHAIRMAN, ALDERMEN AND MEMBERS
OF THE COUNTY COUNCIL OF MIDDLESEX.*

SIR, MY LORD, LADIES AND GENTLEMEN,

I have the honour to submit my annual report for the year ended 31st December, 1932.

Speaking generally the statistics relating to the health of the County will be found to be satisfactory, and to show no significant variation from those of the previous year.

Attention, however, may be called to the decline in the rate of mortality from tuberculosis in all its forms. Although the actual fall in this rate, as compared with that of last year, is not very great, it is in definite continuation of the steady decrease in tuberculosis as a cause of death which, except for the abnormal years of the Great War, has marked the present century, and in fact the death-rate from tuberculosis in 1932, viz., 0·67 per 1,000 persons living, is the lowest rate on record in the County.

On the other hand, the position with regard to maternal deaths is not so satisfactory, and the rate, viz., 3·85 deaths per 1,000 births, is not one which can be viewed with complacency.

No apology is needed for calling attention to the opening of the extensions of West Middlesex County Hospital by Her Majesty the Queen on 17th February, 1932, and this memorable event is dealt with in the body of this report. The illustrations which appear opposite page 13 convey some idea as to the nature of the provision which has been made by the County Council in the extensions in question.

I regret once more having to refer to the shortage of beds in the Council's hospitals and institutions during times of pressure. Under the heading "Local Government Act" I have set out in some detail the various alterations and improvements to the hospitals and institutions carried out or decided upon during 1932 by the Public Health and Public Assistance Committee. These are evidence that the Committee is fully alive to the importance of improving existing facilities and extending accommodation. The financial position of the country, however, has precluded the bringing forward of any schemes involving immediate and heavy capital expenditure, with the exception of a scheme for substantial additions to Redhill County Hospital. So far as it is possible to estimate, the County Council's hospitals, suitably modernised and with certain additions, should prove adequate to meet the demand in the County for beds for the accommodation of persons suffering from acute illness for some time to come if reserved for this purpose, but, owing to the lack of alternative accommodation, and to the unsuitability of certain wards in the hospitals for any other purpose, numbers of chronic patients have to be dealt with at the present time in the County Council's hospitals. The problem the County Council is faced with in this connection is two-fold: (1) To relieve the hospitals of patients suffering from chronic disease, and (2) to render the hospital buildings themselves—in some cases by reconstruction, and in others by additions—suitable for the modern treatment of acutely ill persons.

The year under review has witnessed the loss from the staff of the Public Health Department of an unusual number of senior officers. Reference will be found in this report to the sudden death of Dr. Spencer Mort, F.R.C.S., Medical Superintendent of North Middlesex County Hospital, and the resignations of Miss A. Dowbiggin, M.B.E., Matron of the same hospital, and Mr. Sidney Villar, F.R.C.V.S., Veterinary Inspector. To these names must be added that of Miss A. A. I. Pollard, M.B.E., Chief Inspector of Midwives and Superintendent of Health Visitors, who relinquished her appointment on 31st December, 1932. Miss Pollard has been associated with the County Council since 1906, when she was appointed the first Inspector of Midwives in the County. During the many years she has been employed in Middlesex, she has carried out her duties with ability, tact and devotion, and I wish to place on record my sincere appreciation of her unfailing loyalty to the County Council and to me personally.

It is only fitting that I should refer to the very numerous and exacting duties which have been undertaken by the Chairman and Members of the Public Health and Public Assistance Committee. The enthusiasm with which they entered upon their responsible task has continued unabated, and the encouragement and support which at all times I have received from them has been of the greatest assistance to me in the carrying out of my duties.

In connection with the Public Health and Public Assistance Committee, it is with very great regret that I have to record the serious illness of the Chairman, Mr. County Alderman O. F. Broadway, which commenced at the close of 1932 and led to his death in May, 1933.

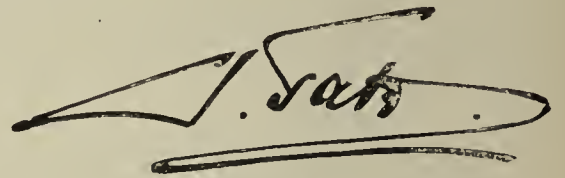
Mr. Broadway was Vice-Chairman of the Public Health, Housing and General Purposes Committee from 1924, and when the Public Health, Housing and Public Assistance Committee was constituted in January, 1930, he was elected Chairman, and continued in this office when the designation

of the Committee was changed in January, 1931, to that of the Public Health and Public Assistance Committee. Mr. Broadway's devotion to the interests of the County is well known to all members of the County Council, and his outstanding abilities, combined with his unfailing courtesy and kindness, endeared him to all with whom he came into contact. His premature death deprived the Committee and the County Council of a gentleman who could be ill spared, and both members and officers deplore his loss as that of a personal friend.

In conclusion I would take this opportunity of again expressing my indebtedness to all the members of my staff for the willing help they have given me throughout the year, and especially would I mention the valuable services of Dr. Macaulay who, together with Dr. Perkins, has been responsible for the preparation of a considerable part of this report.

I have the honour to be,

Your obedient Servant,



County Medical Officer.

PUBLIC HEALTH DEPARTMENT,
10, GREAT GEORGE STREET,
WESTMINSTER, S.W.1.

October, 1933.

Staff.

WHOLE-TIME OFFICERS.

County Medical Officer of Health and School Medical Officer :

J. Tate, M.R.C.S., L.R.C.P., D.P.H.

Deputy County Medical Officer of Health and Deputy School Medical Officer :

H. M. C. Macaulay, M.D., B.S., B.Sc., D.P.H.

Assistant County Medical Officer of Health :

A. C. T. Perkins, M.D., B.S., D.P.H.

Tuberculosis Medical Officers :

F. R. B. Atkinson, M.D., C.M.

O. Bruce, M.R.C.S., L.R.C.P.

S. Trevor Davies, M.R.C.S., L.R.C.P.

J. R. B. Dobson, M.B., B.S., B.Sc.

H. Evans, M.D., Ch.B., D.P.H.

W. S. Forbes, M.B., Ch.B., D.P.H.

*Assistant Medical Officers :**(Maternity and Child Welfare and School Medical Inspection and Treatment.)*

Mrs. A. M. Burn, M.B., Ch.B., D.P.H.

Miss J. R. Campbell, M.B., Ch.B., D.P.H.

Miss K. M. Cellan-Jones, M.D., B.S., D.P.H.

(commenced duty, 1st March, 1932).

Miss K. Glyn-Jones, M.R.C.S., L.R.C.P.

W. R. H. Heddy, M.R.C.S., L.R.C.P., D.P.H.,

Barrister-at-Law.

H. W. Moir, M.B., Ch.B., D.P.H.

Lieut.-Col. H. L. W. Norrington, D.S.O.,

M.R.C.S., L.R.C.P.

Miss M. K. Ruddy, M.D., B.S., B.Sc.

Mrs. R. H. Shelley, M.B., B.S.

Miss G. Wilson, M.A., M.B., Ch.B., D.P.H.

*Veterinary Inspector :**(Milk and Dairies (Consolidation) Act, 1915, and Milk and Dairies Order, 1926.)*

Sidney Villar, F.R.C.V.S. (resigned 31st December, 1932).

*Senior Dental Officer :**(Maternity and Child Welfare, County Sanatoria, School Dental Treatment.)*

S. J. Smith, L.D.S.

*Assistant Dental Officers :**(Maternity and Child Welfare and School Dental Treatment.)*

J. V. Bingay, L.D.S.

R. E. Cook, L.D.S.

R. V. Kingham, L.D.S.

Mrs. C. S. Leiper, L.D.S.

Mrs. I. M. Pritchard, L.D.S.

*Inspector of Midwives and Superintendent of
Health Visitors :*

Miss A. A. I. Pollard (retired 31st December, 1932).

Inspector of Midwives :

Miss C. A. M. Coleman.

Tuberculosis Dispensary Nurses	..	..	..	..	..	..	..	13
Health Visitors and School Nurses	..	..	..	..	..	..	..	26
Dental Nurses	..	..	..	..	..	..	..	6
Midwives	..	..	..	..	..	..	..	2

PART-TIME OFFICERS.

Consulting Obstetric Physicians :(1) *Central Ante-natal Clinic :*

J. S. Fairbairn, M.A., F.R.C.S., F.R.C.P.

(2) *Puerperal Fever, &c., Regulations, 1926 :*

J. M. Wyatt, M.B., B.S., F.R.C.S.

*Ophthalmic Surgeons :**(Maternity and Child Welfare and School Medical Services.)*

F. A. C. Tyrrell, B.A., M.B., B.Ch., F.R.C.S. (died 1st January, 1933).

C. D. Shapland, M.B., B.S., M.R.C.P., F.R.C.S.

*Assistant Medical Officers :**(Maternity and Child Welfare.)*

L. W. Hignett, M.B., C.M., D.P.H.

J. W. Poole, M.B., B.S.

HOSPITALS, INSTITUTIONS AND SANATORIA.

NORTH MIDDLESEX COUNTY HOSPITAL.

Medical Superintendent :

Spencer Mort, M.D., Ch.M., F.R.C.S. (Edin.), F.R.S. (Edin.) (died 21st November, 1932).

Deputy Medical Superintendent :

A. W. Gregorson, M.D., Ch.B., F.R.F.P.S.

Surgeon :

R. L. Galloway, M.B., Ch.B., F.R.C.S. (Edin.).

Assistant Medical Officers :

K. A. Hudson, M.B., Ch.M.

E. B. Jackson, M.B., B.S.

H. O. Blauvelt, M.D., C.M., F.R.C.S.

P. J. Nagle, M.B., B.Ch., B.A.O.

J. A. B. Young, M.D., Ch.B., M.R.C.P.

Miss E. A. Pennycuik, M.B., Ch.B.

F. W. Willway, M.B., B.S., B.Sc., F.R.C.S.

A. R. K. Burne, M.B., Ch.M., F.R.C.S. (Edin.).

Matron :

Miss A. Dowbiggin, M.B.E., R.R.C. (resigned 30th November, 1932).

WEST MIDDLESEX COUNTY HOSPITAL.

Medical Superintendent :

J. B. Cook, M.D., Ch.B., D.P.H.

Deputy Medical Superintendent :

Miss M. W. Warren, M.R.C.S., L.R.C.P.

Assistant Medical Officers :

A. W. Badenoch, M.A., M.D.

Miss E. I. Langston, M.D., B.S.

M. Deane, M.D., M.R.C.P.

G. Stephen, M.B., Ch.B.

J. A. McLean, M.D.

Matron :

Miss E. Huggins.

CENTRAL MIDDLESEX COUNTY HOSPITAL.

Medical Superintendent :

W. E. Turner, M.R.C.S., L.R.C.P.

Deputy Medical Superintendent :

T. G. I. James, M.B., B.Ch., B.Sc., F.R.C.S. (Eng. and Edin.).

Assistant Medical Officers :

N. M. Matheson, M.B., Ch.B., F.R.C.S., M.R.C.P.

A. D. Abdullah, M.B., Ch.M., M.R.C.P.

E. H. Capel, M.B., B.S.

Matron :

Miss B. Gebhard.

REDHILL COUNTY HOSPITAL.

Medical Superintendent :

J. N. Deacon, M.C., M.B., B.S.

Deputy Medical Superintendent :

W. A. Steel, M.D., M.R.C.P.

*Assistant Medical Officers :*E. B. Brooke, M.A., M.B., B.Ch., M.R.C.P.,
D.P.H.

J. H. Attwood, M.B., B.S.

D. B. Craig, L.R.C.P., F.R.C.S. (Edin.).

Surgeon (part-time) :

R. Trevor Jones, M.B., B.S., B.Sc., F.R.C.S.

Matron :

Miss L. F. Dykes.

HILLINGDON COUNTY HOSPITAL.

Medical Superintendent :

R. Rutherford, F.R.C.S. (Eng.).

Assistant Medical Officers :

R. G. Macbeth, B.A., B.M., B.Ch.

J. H. Follows, M.D.

Matron :

Miss E. S. Laing.

STAINES INSTITUTION.

Medical Officer (part-time) :

L. R. Pickett, M.R.C.S., L.R.C.P.

EDGBURY CONVALESCENT HOME, WOBURN SANDS.

Medical Officer (part-time) :

J. N. Alexander, M.R.C.S., L.R.C.P.

Matron :

Miss M. A. Bishop.

EDMONTON HOUSE, ENFIELD HOUSE, CHASE FARM SCHOOLS, REDHILL INSTITUTION,
WARKWORTH HOUSE, HILLINGDON INSTITUTION :

The medical care of patients and inmates in these institutions is provided by the medical staffs of the hospitals set out above.

COUNTY SANATORIUM, HAREFIELD.

Medical Superintendent :

J. R. McGregor, M.B., Ch.B., D.P.H.

Deputy Medical Superintendent :

F. A. H. Simmonds, B.A., M.B., B.Ch., D.P.H.

Assistant Medical Officers :

K. R. Stokes, M.R.C.S., L.R.C.P.

D. G. M. Edwards, M.B., B.S., D.P.H.

Matron :

Miss C. Woodward.

COUNTY SANATORIUM, CLARE HALL, SOUTH MIMMS.

Medical Superintendent :

A. C. Tabois, M.D.

Deputy Medical Superintendent :

J. T. N. Roe, M.B., Ch.B.

Assistant Medical Officer :

J. O. Williams, M.R.C.S., L.R.C.P.

Matron :

Miss M. Brown.

PUBLIC VACCINATORS AND DISTRICT MEDICAL OFFICERS (PUBLIC ASSISTANCE).

Name.	Qualifications.	District.
<i>Northern Area—</i>		
Cattle, Miss Fanny	B.Sc., M.R.C.S., L.R.C.P.	Tottenham (West Green).
Duff, J. M. (Resigned 30/9/32)	M.B., Ch.B.	Edmonton (North).
Jenkins, E. J. (appointed 1/10/32, resigned 31/10/32)	M.R.C.S., L.R.C.P. ..	
Tughan, A. E. (appointed 1/11/32)	L.R.C.S., L.R.C.P., L.R.F.P. & S.	
Hill, J. E.	M.B., B.Ch.	Enfield Highway and Ponders End.
McLaren, T. (Died 21/10/32)	M.B., B.Ch.	Lower Tottenham East.
Shaw, J.	M.A., M.B., Ch.B. ..	Edmonton (South).
Toop, B. M.	M.R.C.S., L.R.C.P. ..	Enfield Town and Cooper's Lane.
Wilson, A.	M.B., Ch.B.	Lower Tottenham West.
Yule, Burton	M.B., Ch.B., D.P.H. ..	Tottenham (High Cross).
<i>Northern and North Eastern Areas—</i>		
Woodcock, H. C.	M.R.C.S., L.R.C.P. ..	Southgate and Cockfosters.
<i>North-Eastern Area—</i>		
Bensted, L. (D.M.O. only) ..	M.R.C.S., L.R.C.P. ..	Friern Barnet (South).
Buckler, E. F.	M.B., Ch.B.	Highgate.
Evans, G. P.	M.R.C.S., L.R.C.P. ..	Friern Barnet (North).
Evans, G. P. (P.V. only) ..	M.R.C.S., L.R.C.P. ..	Friern Barnet (South).
Gleed, S. R.	M.R.C.S., L.R.C.P. ..	Finchley (North).
Hayes, W. E.	M.B., B.Ch.	South Mimms.
Hicks, T. W.	M.D.	Finchley (South).
James, F.	M.R.C.S., L.R.C.P. ..	Wood Green.
Kerr, C. H.	M.D., B.Ch.	Winchmore Hill.
Pearman, T. E. A.	M.R.C.S., L.R.C.P. ..	Hornsey (Harringay).
<i>Central Area—</i>		
Andrew, F. W. (Resigned 31/12/32)	M.R.C.S., L.R.C.P. ..	Hendon Central and Hendon West (part).
Baron, R. W.	M.B., Ch.B.	Child's Hill.
Butler, C. J. (Resigned 4/4/32)	M.R.C.S., L.R.C.P. ..	Wealdstone.
Parker, Miss Lucy (appointed 5/6/32)	M.D., B.S., M.R.C.P. ..	
Church, D. M.C.	M.B., Ch.B.	Edgware, Little Stanmore and Lower Hale.
Dyson, H. E.	M.D., B.S.	Wembley.
Levick, G. D. B.	M.R.C.S., L.R.C.P. ..	Pinner.
Little, Miss Margaret I. ..	M.R.C.S., L.R.C.P. ..	Burnt Oak and Watling Estate.
Morley, A. H.	M.B., B.S.	Mill Hill (part).
Myers, L.	M.B., B.S.	Hampstead Garden Suburb and Golders Green.
Pennefather, C. M.	M.D., B.S.	Harrow-on-the-Hill.
Romer, R. L.	M.R.C.S., L.R.C.P. ..	Great Stanmore and Harrow Weald.
Routledge, Miss Mary H. ..	M.B., Ch.B., D.P.H. ..	Kingsbury.
<i>Willesden Area—</i>		
Auty, C. H. (D.M.O. only) ..	M.R.C.S., L.R.C.P. ..	Willesden (No. 2).
Scott, C. F. T. (P.V. only) ..	M.B., Ch.B.	Harlesden.
Smith, J. A. (D.M.O. only) ..	M.D.	Willesden (No. 1).
Smith, P. (P.V. only)	M.D., B.S., D.P.H. ..	Kilburn. .
Stocker, W. W. (D.M.O. only)	M.R.C.S., L.R.C.P. ..	Willesden (No. 3).
<i>Western Area —</i>		
Caverhill, A. M.	M.D., Ch.R., D.T.M. ..	Greenford, Hanwell and Perivale.
Cockle, W. P.	B.A., M.D., B.Ch. ..	Ealing and West Twyford.
Dixon, C. F. L.	M.D.	Acton.

Name.	Qualifications.	District.
<i>Western Area—continued.</i>		
Dobson, W. T.	M.R.C.S., L.R.C.P.	Uxbridge and Ickenham.
Dunkerley, J. T.	M.R.C.S., L.R.C.P.	Harefield.
Hignett, L. W.	M.B., C.M., D.P.H.	Ruislip.
McKenna, J.	M.B., B.Ch.	Norwood.
Mulligan, Miss Olive J. E. G.	M.B., B.Ch., B.A.O.	Northolt.
Norman, Miss Jessie G. A. ..	M.R.C.S., L.R.C.P.	West Drayton and Yiewsley.
Parrott, J. N.	M.R.C.S., L.R.C.P.	Hayes.
Vickers, H.	M.R.C.S., L.R.C.P.	Cowley and Hillingdon.
<i>Southern Area—</i>		
Cassells, W. L.	B.Sc., M.B., Ch.B.	Twickenham.
Christian, L. B. (P.V. only)	M.B., C.M.	Heston, Isleworth (part).
Coffey, P.	L.R.C.P., L.R.C.S.	Cranford, Harlington and Harmondsworth (Sipson and Heathrow).
Ducat, A. D.	M.B., M.R.C.S., L.R.C.P. ..	Chiswick.
Gordon, S. E.	L.R.C.P.I., L.R.C.S.I.	Sunbury.
Gunther, H. A.	M.B., M.R.C.S., L.R.C.P. ..	Hampton Wick.
Heiser, A. L. (Resigned 30/6/32)	M.R.C.S., L.R.C.P.	Harmondsworth (Longford) and Stanwell.
Edwards, J. A. (appointed 1/7/32)	M.R.C.S., L.R.C.P.	
Mann, A. C.	M.B., B.Ch.	Staines and Laleham.
*Montgomery, V. C. (P.V. only)	M.B., B.Ch., B.A.O.	Bedfont, Feltham and Hanworth.
Morgan, V. V.	M.R.C.S., L.R.C.P.	Hampton Hill (S. James).
Neil, R. C.	M.R.C.S., L.R.C.P.	Brentford and Brentford End.
Owen, A. D.	M.R.C.S., L.R.C.P., L.S.A. ..	Hampton.
†Parr, A. C. E. (D.M.O. only)	B.A., M.R.C.S., L.S.A.	Bedfont, Feltham and Hanworth.
Phillips, W. W.	M.B., Ch.B.	Isleworth (part).
Pickett, L. R.	M.R.C.S., L.R.C.P.	Ashford.
Sadler, C. G. A.	M.R.C.S., L.R.C.P.	Teddington.
Serjeant, R. (D.M.O. only) ..	M.R.C.S., L.R.C.P.	Heston and Hounslow.
Urquhart, A.	M.A., M.B., Ch.B., D.P.H. ..	Shepperton and Littleton.

* Appointed District Medical Officer for Bedfont, Feltham and Hanworth, 1/4/32. † Resigned, 31/3/32.

Public Vaccinators for Hospitals and Institutions in the County.

Name.	Qualifications.	Institutions.
Mort, S. (died 21st Nov., 1932)	M.D., Ch.M., F.R.C.S.(Edin.), F.R.S.(Edin.)	North Middlesex County Hospital and Edmonton House, Enfield House and Chase Farm Schools.
Deacon, J. N.	M.C., M.B., B.S.	Redhill County Hospital and Redhill Institution.
Pickett, L. R.	M.R.C.S., L.R.C.P.	Staines Institution and Children's Home, Ashford.
Rutherford, R.	F.R.C.S.	Hillingdon County Hospital and Hillingdon Institution.
Vickers, H.	M.R.C.S., L.R.C.P.	Children's Home, Hillingdon (Bartram Lodge).
Cook, J. B.	M.D., Ch.B., D.P.H.	West Middlesex County Hospital, Warkworth House, Isleworth, Central Children's Home, South Middlesex area (Dundee House, Isleworth).
Turner, W. E.	M.R.C.S., L.R.C.P.	Central Middlesex County Hospital.
Mitchell, G. H.	M.B., C.M.	Central Children's Home, Willesden area.
Church, D. M. C.	M.B., Ch.B.	Children's Home, Edgware.
Dale, W.	M.R.C.S., L.R.C.P.	Ashford Residential School (L.C.C.).
Davidson, J. A.	M.D., Ch.B.	Hanwell Residential School (L.C.C.).
Payne, H. N.	M.D., B.S., D.P.H.	Erschine Hill, Hendon Residential School (L.C.C.).

SUMMARY OF IMPORTANT STATISTICS RELATING TO THE ADMINISTRATIVE COUNTY OF MIDDLESEX.

Area (including inland water)..	..	..	..	..	..	..	..	148,691 acres.
Population 1931 (census)	..	..	..	..	..	..	..	1,638,728
„ 1932 (estimated for mid-year)	..	..	..	..	..	..	..	1,702,530
Number of structurally separate dwellings occupied, 1931 (census)	..	..	..	..	..	..	..	348,595
Number of private families, 1931 (census)	..	..	..	..	..	..	..	431,368
Rateable value, 1932	..	..	..	..	..	..	..	£14,684,343
Product of a penny rate, 1932	..	..	..	..	..	..	..	£60,044
Live births—								Total. Male. Female.
Legitimate	..	..	..	..	..	..	..	24,448 12,574 11,874
Illegitimate	..	..	..	..	..	..	..	989 477 512
Birth-rate	..	..	..	..	..	..	..	14·94
Stillbirths..	..	..	..	..	..	..	..	901
„ Rate per 1,000 total births..	..	..	..	..	..	..	..	34·2
Deaths	..	..	..	..	..	..	..	16,516
Death-rate	..	..	..	..	..	..	..	9·7
Number of women dying from diseases and accidents of pregnancy and childbirth :—								
From sepsis	..	..	..	..	..	..	..	45
From other causes	..	..	..	..	..	..	..	53
Maternal mortality rate per 1,000 live births	..	..	..	..	..	..	..	3·85
Infantile mortality rate :—								
Legitimate	..	..	..	..	..	..	..	47
Illegitimate	..	..	..	..	..	..	..	138
Total..	..	..	..	..	..	..	..	50·5
Deaths from measles (all ages)..	..	..	..	..	..	..	..	133
„ whooping cough (all ages)	..	..	..	..	..	..	..	74
„ diarrhoea (under 2 years of age)	..	..	..	..	..	..	..	137

Administrative County of Middlesex.

ANNUAL REPORT OF THE COUNTY MEDICAL OFFICER FOR THE YEAR 1932.

Natural and Social Conditions.

AREA.—The area of the County of Middlesex, inclusive of inland water, is 148,691 acres.

The County is divided into 32 separate local government areas. During the year charters of incorporation were granted to three urban districts, Brentford and Chiswick, Hendon, and Heston and Isleworth, bringing the total of municipal boroughs in the County to seven. There are no county boroughs in Middlesex.

At the close of the year the 32 separate sanitary areas of the County were as follows :—

- 7 municipal boroughs with an area of 36,397 acres.
- 23 urban districts with an area of 96,935 acres.
- 2 rural districts with an area of 15,359 acres.

In the course of the year the County Council completed its first general review of county districts, undertaken in accordance with section 46 of the Local Government Act, 1929, and in September submitted its report to the Ministry of Health. Early in 1933 the Ministry held a local enquiry, when the representations put forward by the several county districts affected by the County Council's scheme were received for consideration by the Minister.

If the County Council's proposals are adopted a reduction in the number of separate sanitary areas in the County will be effected.

POPULATION.—In the Annual Report for 1931 attention was drawn to the very remarkable rate of growth of population in Middlesex during the previous decade ; a rate of growth more rapid than that experienced in any other county or county borough in the United Kingdom. During 1932 no signs have been apparent of any diminution in the rate of increase of the County's population and the Registrar-General's estimate of the population of Middlesex at mid-1932 was 1,702,530, an increase of 58,740 persons over the figure for the previous year.

This rapid increase of population within a relatively small area, sustained, as it has been, for a number of years, has made the position of Middlesex unique as an area of local government ; and has created, and is still creating, problems of no little administrative difficulty.

The following table gives statistical information regarding the distribution of population within the administrative county :—

POPULATION.

District.	Aereage.	Census Population.		Censal Increase or Decrease, 1921-1931.				Estimated by Registrar-General, mid-1932.*	
		1921.	1931.	Persons.		Percentage.			
				In-crease.	De-crease.	In-crease.	De-crease.		
Urban—									
Acton (Borough)	2,305	61,299	70,510	9,211	—	15·0	—	70,640	
Brentford and Chiswick (Borough)	2,341	57,970	62,618	4,648	—	8·0	—	62,950	
Ealing (Borough)	9,133	90,433	117,707	27,274	—	30·2	—	122,700	
Edmonton	3,896	66,807	77,658	10,851	—	16·2	—	82,010	
Enfield	12,574	60,650	67,874	7,224	—	11·9	—	69,910	
Feltham	5,089	11,567	16,317	4,750	—	41·1	—	16,950	
Finchley	3,384	46,716	58,964	12,248	—	26·2	—	60,290	
Friern Barnet	1,304	17,375	23,101	5,726	—	33·0	—	23,530	
Hampton	2,045	10,675	13,061	2,386	—	22·4	—	13,030	
Hampton Wick	1,306	3,265	2,960	—	305	—	9·3	2,950	
Harrow	2,129	19,637	26,380	6,743	—	34·3	—	29,400	
Hayes and Harlington	5,513	9,705	23,649	13,944	—	143·7	—	26,650	
Hendon (Borough)	10,471	57,529	115,682	58,153	—	101·1	—	123,200	
Heston and Isleworth (Borough) ...	6,851	46,664	75,460	28,796	—	61·7	—	81,100	
Hornsey (Borough)	2,875	87,659	95,523	7,864	—	9·0	—	96,990	
Kingsbury	1,829	1,856	16,636	14,780	—	796·3	—	20,520	
Ruislip-Northwood	6,585	9,112	16,042	6,930	—	76·0	—	17,440	
Southall-Norwood	2,575	30,287	38,940	8,653	—	28·6	—	41,530	
Southgate	3,596	39,122	55,577	16,455	—	42·1	—	57,250	
Staines	8,268	16,979	21,213	4,234	—	24·9	—	22,070	
Sunbury... ..	5,463	9,829	13,337	3,508	—	35·7	—	13,510	
Teddington	1,214	21,213	23,369	2,156	—	10·2	—	23,490	
Tottenham	3,014	146,711	157,772	11,061	—	7·5	—	156,803	
Twickenham (Borough)	2,421	34,790	39,906	5,116	—	14·7	—	40,900	
Uxbridge	10,238	20,626	31,880	11,254	—	54·6	—	32,420	
Wealdstone	1,061	13,433	27,019	13,586	—	101·2	—	28,320	
Wembley	4,564	16,187	48,561	32,374	—	200·0	—	53,420	
Willesden	4,385	165,674	184,434	18,760	—	11·3	—	186,800	
Wood Green	1,626	50,707	54,181	3,474	—	6·8	—	54,500	
Yiewsley and West Drayton ...	5,277	9,163	13,066	3,903	—	42·6	—	13,730	
Rural—									
Hendon	9,230	16,140	43,611	27,471	—	170·2	—	50,810	
South Mimms	6,129	3,222	5,720	2,498	—	77·5	—	6,720	
The County	148,691	1,253,002	1,638,728	385,726	—	30·8	—	1,702,530	

* As deaths from persons serving with His Majesty's Forces are now allocated to their area of residence in the same manner as civilian deaths, the Register-General has given only *one* estimate of resident population for 1932, to be used for the calculation of both birth and death-rates.

BIRTHS AND BIRTH-RATES.—The corrected number of births belonging to the County and occurring during 1932 was 25,437 (13,051 males and 12,386 females). This number is equivalent to a birth-rate of 14·94 per 1,000 of the population. The number of illegitimate births registered was 989 (477 males and 512 females), representing an illegitimate birth-rate of 0·58 per 1,000 of the population. The ratio of legitimate to illegitimate births is 24·7 to one.

The following table gives the birth statistics for the last five years for Middlesex, London, the Great Towns, and England and Wales :—

Year.	The County.		London.	Great Towns.	England and Wales.
	Births.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.
1928	22,665	16·0	16·2	16·9	16·7
1929	23,331	16·0	15·7	16·6	16·3
1930	24,840	15·9	15·7	16·6	16·3
1931	25,507	15·5	15·0	16·0	15·8
1932	25,437	14·9	14·2	15·4	15·3

It will be seen that the fall in the birth rate experienced last year has been slightly increased during 1932, and with the exception of the year 1918, the present birth-rate is the lowest on record.

Particulars of the number of births and birth-rates in each sanitary district of the County are set out in the table which follows, the districts being arranged in descending order of magnitude of the birth-rate :—

BIRTHS AND BIRTH-RATES IN EACH DISTRICT, 1932.

DISTRICT.	Net number.	Rate per 1,000 living.	DISTRICT.	Net number.	Rate per 1,000 living.
Kingsbury	482	23·5 (23·7)	Ruislip-Northwood ..	258	14·8 (15·8)
Hayes and Harlington ..	564	21·2 (21·5)	Twickenham (Borough) ..	602	14·7 (15·3)
Yiewsley and West Dray- ton	285	20·8 (22·4)	Teddington	343	14·6 (15·8)
Sunbury	257	19·0 (19·3)	Harrow	425	14·5 (16·2)
Feltham	319	18·8 (19·8)	Ealing (Borough).. ..	1,768	14·4 (15·0)
Wealdstone	510	18·0 (21·2)	Tottenham	2,214	14·1 (14·7)
Southall-Norwood	745	17·9 (16·7)	Brentford and Chiswick (Borough)	877	13·9 (14·3)
Hendon (Rural)	910	17·9 (18·1)	Acton (Borough)	970	13·7 (14·4)
Uxbridge	567	17·5 (19·7)	Hendon (Borough)	1,688	13·7 (14·4)
Heston and Isleworth (Borough)	1,408	17·4 (17·6)	Friern Barnet	320	13·6 (13·1)
Edmonton	1,404	17·1 (17·5)	Wood Green	681	12·5 (13·2)
Staines	357	16·2 (16·9)	Hampton	159	12·2 (14·2)
Willesden.. ..	2,880	15·4 (15·9)	Finchley	698	11·6 (12·9)
South Mimms (Rural) ..	103	15·3 (20·7)	Hampton Wick	34	11·5 (18·0)
Wembley	807	15·1 (16·1)	Hornsey (Borough) ..	1,103	11·4 (11·9)
Enfield	1,048	15·0 (14·5)	Southgate	651	11·4 (12·0)

Figures in brackets indicate birth-rates in 1931.

STILL-BIRTHS.—The number of still-births registered in 1932 was 901, equivalent to a rate of 34·2 per 1,000 total births or 0·53 still-births per 1,000 population, as compared with a rate of 0·66 for the whole country.

DEATHS AND DEATH-RATES (ALL CAUSES).—The corrected number of deaths belonging to the County occurring during 1932 was 16,516, or 508 more than occurred in the course of the previous year. This corresponds to a death-rate of 9·7 per 1,000 persons living.

The figures for the last five years relating to Middlesex, London, the Great Towns and England and Wales as a whole are as follows :—

Year.	The County.		London.	Great Towns.	England and Wales.
	Deaths.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.
1928	14,050	9·9	12·1	11·6	11·7
1929	16,705	11·5	13·8	13·7	13·4
1930	14,658	9·4	11·4	11·5	11·4
1931	16,008	9·8	12·4	12·3	12·3
1932	16,516	9·7	12·3	11·8	12·0

The six conditions which have been responsible for more than half the total deaths have not varied for several years, and during the past three years there has been no alteration in the order of their influence upon the general death-rate. This is shown in the table below. Attention may again be called to the fact that of the six main causes of death, tuberculosis is the one which most seriously affects the welfare of the community, for whilst of the persons dying from heart disease, cancer, cerebral hæmorrhage and bronchitis 4,577 or 63% were over the age of 65 and 2,514 or 35% were over the age of 75; no less than 984 or 86% of the deaths from tuberculosis occurred between the age of 15 and 65 years. It is, therefore, gratifying to note the steady fall in the death-rate for tuberculosis which has been experienced during recent years.

The death-rates (per 1,000 persons living) of the principal causes of death for the past five years are as follows:—

	1928.	1929.	1930.	1931.	1932.
Heart disease	1·73	2·32	1·91	2·16	2·18
Cancer	1·33	1·33	1·28	1·36	1·33
Tuberculosis (all forms)	0·76	0·83	0·75	0·71	0·67
Pneumonia (all forms)	0·65	0·88	0·58	0·68	0·61
Cerebral hæmorrhage, &c.	0·44	0·47	0·49	0·46	0·43
Bronchitis	0·45	0·64	0·31	0·36	0·31

The table on page 6 gives information as to the number of deaths and the death-rates in each sanitary district of the County.

Detailed information as to the different diseases which contributed towards the total number of deaths and the age groups in which these deaths occurred is given in the following table :—

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE
COUNTY OF MIDDLESEX, 1932.

Causes of Death.	All Ages.	0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Typhoid and Paratyphoid fevers	10	—	—	—	—	2	2	1	1	1	2	1
2. Measles	133	23	50	32	25	1	1	—	—	—	—	1
3. Scarlet fever	29	—	6	7	6	1	6	3	—	—	—	—
4. Whooping cough	74	32	18	15	8	1	—	—	—	—	—	—
5. Diphtheria	87	2	4	30	44	2	1	1	1	1	1	—
6. Influenza	491	11	8	1	10	21	26	40	71	79	104	120
7. Encephalitis lethargica	17	—	—	—	—	1	5	2	5	2	1	1
8. Cerebro-spinal fever	36	10	3	6	5	4	4	—	1	3	—	—
9. Tuberculosis of respira- tory system	965	2	4	3	12	212	246	189	148	112	28	9
10. Other tuberculous diseases	179	21	13	26	32	34	13	15	6	9	6	4
11. Syphilis	50	13	—	—	—	1	3	4	15	8	5	1
12. General paralysis of the insane, tabes dorsalis	70	—	—	—	—	2	—	9	24	22	10	3
13. Cancer, malignant disease	2,268	2	—	6	9	13	39	143	390	634	630	402
14. Diabetes	185	—	—	1	1	3	9	6	9	36	65	55
15. Cerebral hæmorrhage, &c.	736	—	—	—	—	—	4	17	60	125	243	287
16. Heart disease	3,716	2	—	—	14	43	70	105	311	550	1,068	1,553
17. Aneurysm	66	—	—	—	—	—	2	4	20	23	12	5
18. Other circulatory diseases	721	3	—	1	1	1	2	8	35	128	238	304
19. Bronchitis	525	22	8	4	2	3	3	7	19	63	122	272
20. Pneumonia (all forms)	1,044	177	67	37	25	33	47	67	93	153	168	177
21. Other respiratory diseases	195	7	5	3	3	6	8	18	26	32	43	44
22. Peptic ulcer	146	—	—	—	—	2	18	12	36	41	31	6
23. Diarrhœa, &c.	183	128	9	3	3	2	4	3	4	10	7	10
24. Appendicitis	105	—	—	3	12	15	12	11	15	20	12	5
25. Cirrhosis of liver	55	—	—	—	—	—	2	2	11	22	17	1
26. Other diseases of liver, &c.	88	—	—	—	—	2	4	8	9	28	14	23
27. Other digestive diseases	321	23	1	9	11	16	18	27	41	58	50	67
28. Acute and chronic nephritis	507	5	—	1	7	16	21	32	66	114	125	120
29. Puerperal sepsis	45	—	—	—	—	7	34	4	—	—	—	—
30. Other puerperal causes	53	—	—	—	—	3	30	19	1	—	—	—
31. Congenital debility, pre- mature birth, malforma- tions, &c.	703	685	—	5	5	5	1	1	1	—	—	—
32. Senility	451	—	—	—	—	—	—	—	—	6	75	370
33. Suicide	250	—	—	—	—	11	36	39	67	62	27	8
34. Other violence	629	46	7	19	59	102	70	37	49	73	84	83
35. Other defined diseases	1,371	70	25	35	69	84	106	111	170	226	262	213
36. Causes ill-defined, or un- known	12	1	2	—	—	—	—	—	1	1	2	5
All causes	16,516	1,285	230	247	363	649	847	945	1,706	2,642	3,452	4,150
<i>Special Causes included in No. 35 above.</i>												
Polioencephalitis	4	—	—	1	1	1	1	—	—	—	—	—

DEATHS AND DEATH-RATES IN EACH DISTRICT, 1932.

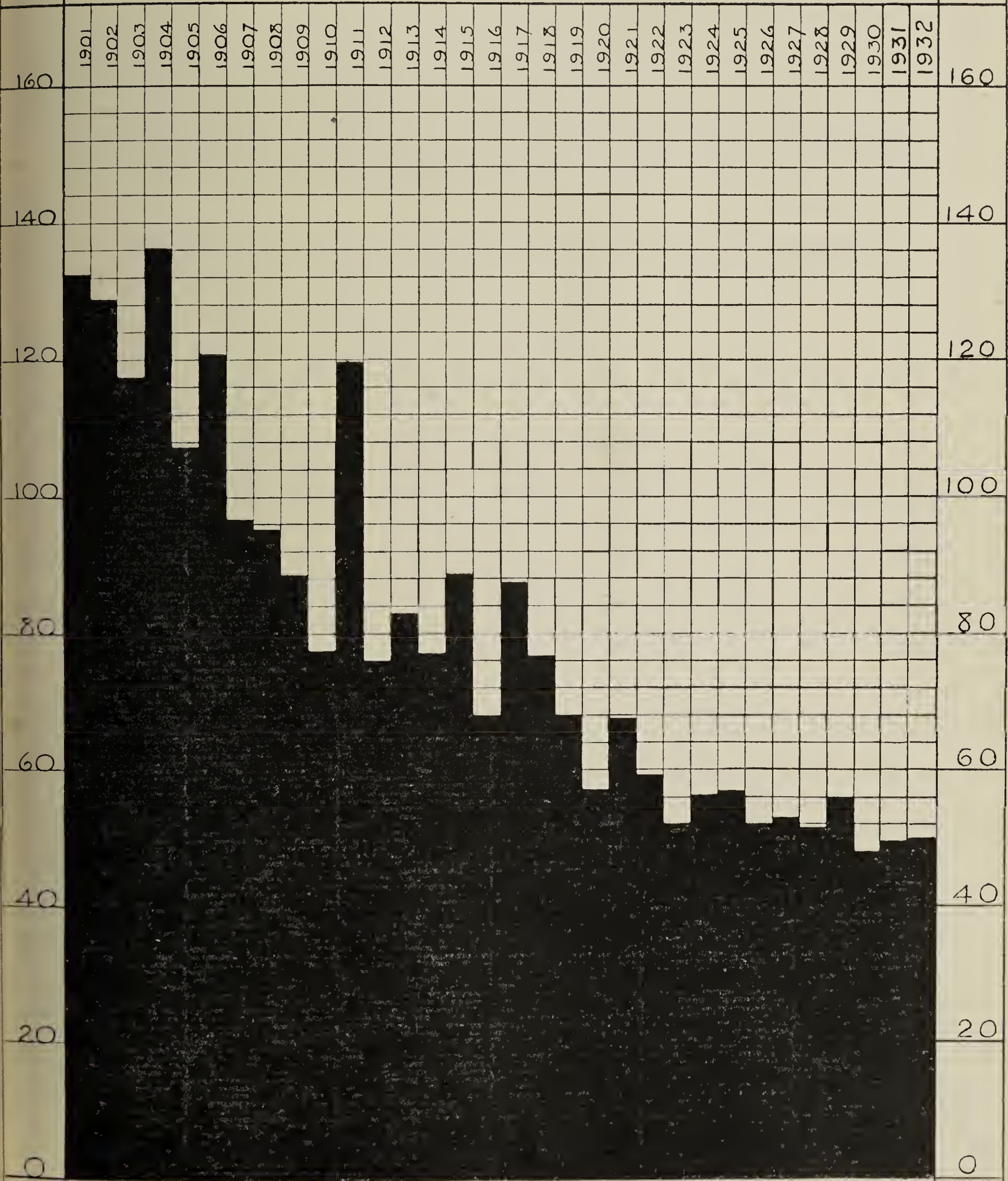
District.	Under 1 year of age.		At all ages.	
	No.	Rate per 1,000 births.	No.	Rate per 1,000 living.
<i>Urban—</i>				
Acton (<i>Borough</i>)	60	62	786	11·1
Brentford and Chiswick (<i>Borough</i>)	43	49	658	10·5
Ealing (<i>Borough</i>)	79	45	1,326	10·8
Edmonton	64	46	767	9·4
Enfield	63	60	744	10·6
Feltham	15	47	153	9·0
Finchley	35	50	621	10·3
Friern Barnet	11	34	172	7·3
Hampton	10	63	138	10·6
Hampton Wick	3	88	34	11·5
Harrow	23	54	261	8·9
Hayes and Harlington	44	78	238	8·9
Hendon (<i>Borough</i>)	86	51	1,036	8·4
Heston and Isleworth (<i>Borough</i>) ..	85	60	788	9·7
Hornsey (<i>Borough</i>)	51	46	1,111	11·5
Kingsbury	30	62	141	6·9
Ruislip-Northwood	6	23	132	7·6
Southall-Norwood	36	48	340	8·2
Southgate	25	40	589	10·3
Staines	17	48	204	9·2
Sunbury	26	101	176	13·0
Teddington	16	47	254	10·8
Tottenham	114	51	1,592	10·2
Twickenham (<i>Borough</i>)	31	51	427	10·4
Uxbridge	18	32	305	9·4
Wealdstone	24	47	221	7·8
Wembley	33	41	391	7·3
Willesden	169	59	1,853	9·9
Wood Green	28	41	556	10·2
Yiewsley and West Drayton ..	14	49	112	8·2
<i>Rural—</i>				
Hendon	21	23	334	6·6
South Mimms	5	49	56	8·3
The County	1,285	50·5	16,516	9·7

INFANTILE MORTALITY.—The number of deaths of infants under one year of age during 1932 was 1,285, equal to an infantile mortality rate of 50·5 per 1,000 births. This rate, though slightly higher than that for 1931, is well below the average for the country generally, as will be noted from the following table :—

Year.	The County.			London.	Great Towns.	England and Wales.
	Births.	Deaths under 1 year.	Rate per 1,000 births.	Rate per 1,000 births.	Rate per 1,000 births.	Rate per 1,000 births.
1928	22,665	1,168	51·5	67	70	65
1929	23,331	1,312	56	70	79	74
1930	24,840	1,190	48	59	64	60
1931	25,507	1,267	50	65	71	66
1932	25,437	1,285	50·5	66	69	65

The infantile mortality rate for that area of the County for which the County Council is the maternity and child welfare authority was 47·1.

COUNTY OF MIDDLESEX
INFANTILE MORTALITY



PROPORTION OF DEATHS UNDER 1 YEAR
OF AGE PER 1000 BIRTHS

Of the infantile deaths which occurred, 685, or 53 per cent., are attributable to congenital or developmental conditions, whilst pneumonia was responsible for 177 deaths (13·8 per cent.) and diarrhœa for 128 (10·0 per cent.).

Information as to the number of deaths of infants and the infantile mortality rate in each sanitary district in the County is given in the table on page 6, and on page 7 appears a diagram illustrating the variations which have occurred in the infantile mortality rate in Middlesex since the beginning of the present century.

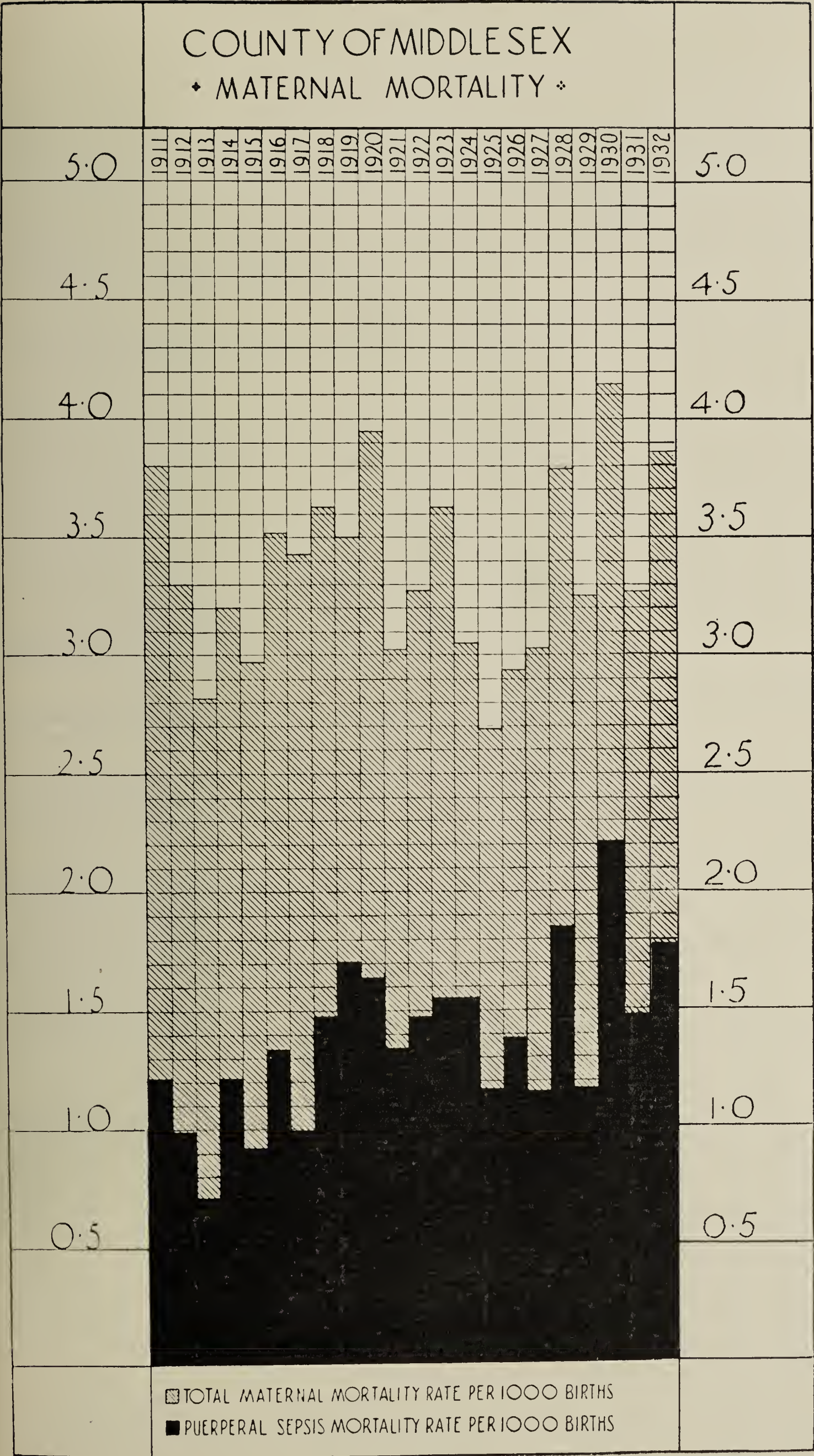
MATERNAL MORTALITY.—During the year 98 deaths of women occurred from causes connected with pregnancy or childbirth, corresponding to a maternal mortality rate of 3·85 per 1,000 live births. Although the number of births registered was actually somewhat smaller than in the previous year (in spite of the increased population), the maternal deaths increased by 14 and the maternal mortality rate by 0·56 per 1,000 live births. In a County such as Middlesex, where the standard of living is relatively high and from whence the well equipped and staffed hospitals both in London and the County are readily accessible, such figures cannot but be regarded as unsatisfactory and disappointing.

The following table gives information as to maternal deaths during the past five years :—

Year.	Puerperal sepsis.		Other accidents and diseases of pregnancy and parturition.		Total.	
	Number of deaths.	Rate per 1,000 births.	Number of deaths.	Rate per 1,000 births.	Maternal deaths.	Maternal mortality rate.
1928	42	1·85	44	1·94	86	3·79
1929	27	1·16	49	2·10	76	3·26
1930	55	2·21	48	1·93	103	4·15
1931	38	1·49	46	1·80	84	3·29
1932	45	1·77	53	2·08	98	3·85

The corresponding maternal mortality rate for the whole country in 1932 is 4·24, the death-rate from puerperal sepsis being 1·61 per 1,000 live births.

On the opposite page is a diagram illustrating the variations in the maternal mortality rate in Middlesex since the year 1911.



Local Government Act, 1929.

The year 1932 has been one of difficulty to the County Council in view of the serious financial position which has prevailed throughout the country generally. In previous annual reports, mention has been made of the great pressure experienced by the Council upon the accommodation for sick persons which was transferred to the County Council from the late Boards of Guardians, and especially of the difficulties arising in Middlesex consequent upon the extraordinary growth of population. Under normal conditions extensions on a large scale calculated to meet the requirements of the County for some years to come might well have been pressed forward, but the need for economy has caused the County Council to limit its proposals to such provisions as were felt to be imperative even under the present national circumstances.

The Council's policy of steadily improving the facilities for dealing with the sick at each of its hospitals has been continued, and reference is made later in this report as to certain of the developments and improvements carried out therein, as well as in the County Council's public assistance institutions.

The most noteworthy occurrence during the year was the honour conferred upon the County Council and its work by Her Majesty Queen Mary, who graciously consented to open a new maternity department, and also an electrical treatment department at the West Middlesex County Hospital. Subsequently, by command of His Majesty The King, the new maternity department was named "The Queen Mary Maternity Wing." The recognition of the work the County Council is carrying out given by the visit of the Queen, not only afforded much gratification to the Council, but also brought the work of the Council into public prominence and should have far-reaching effect in dispelling local prejudice against hospitals associated with the Poor Law. Details of the new department will be found under the heading "West Middlesex County Hospital (pages 12 and 13).

The County Council again gave consideration to the question of the appropriation of the five County Hospitals for the reception and treatment of sick under Public Health Acts instead of under the Acts relating to the relief of the poor, but the position was considered not to have materially altered since the previous year, and it was decided that the time was not yet opportune for such appropriation to be carried into effect.

Last year reference was made in my annual report to the inauguration of a County Examination for nurses trained in the County Council's hospitals, and two such examinations were held during the year. A total of 96 nurses competed, of whom 75 were successful.

Various questions affecting all the County Hospitals were dealt with by the Council or its Committees during the year, amongst which may be mentioned the revision of the dietaries for the sick in hospitals and institutions, the framing of regulations restricting the visitation of patients in hospital by children under the age of 14, and the approval of a uniform scale of charges for reports and consultations in connection with accident cases, &c., admitted to hospital.

A summary of the work carried out in the County Hospitals during 1932 is given on pages 15 to 27 of this report, and is based upon the returns required by the Ministry of Health. More detailed information as to the work of each individual hospital will be found in the Appendices to this report and it is very satisfactory to be able to record that the reports of the hospitals each year are becoming more uniform and the statistical information of a more comparable and valuable character:—

The County Summary Tables and the individual annual reports of the County Hospitals afford a very complete picture of the County Council's extensive work in the institutional treatment of the sick, but mention should also be made of some of the more important matters relating to each hospital which have occurred during the past year.

North Middlesex County Hospital.—It is with regret that I have to record the sudden death of the medical superintendent, Dr. Spence Mort, on 21st November, 1932. Dr. Mort had been the medical superintendent of the North Middlesex Hospital from its inauguration in 1910 as a separate hospital under the administration of a whole-time medical superintendent. He was a man of high academic qualifications and wide experience, and during the Great War was in control of the hospital when it was converted into the Edmonton Military Hospital with accommodation for 2,000 patients with auxiliaries affording accommodation for approximately another 2,000. Of late years Dr. Mort had devoted himself to the study of radium therapy, and had personally been responsible for the radium treatment carried out at the hospital.

In order that there should be no interruption of the work of the hospital and pending the appointment of a successor, Dr. H. M. C. Macaulay, the Deputy County Medical Officer, was placed in administrative control of the hospital, and arrangements were made with the Middlesex Hospital for the work of the radium department to be supervised by Dr. B. W. Windeyer, who was in charge of the radium department of that hospital.

The hospital staff also suffered a great loss in December, 1932, by the resignation of the matron, Miss A. Dowbiggin, M.B.E., R.R.C. As in the case of Dr. Mort, Miss Dowbiggin had been associated with the hospital since 1910, and her exceptional ability and enthusiasm have had great influence upon the evolution of the hospital as an institution for the skilled treatment and nursing of acute illness.

It is in connection with the training of nurses that she will be best remembered, for she devoted much time and energy to this subject, and all questions which concerned the instruction, status and welfare generally of the nursing profession were matters with which she had the deepest concern.

In last year's report mention was made of the opening of a large extension to the Nurses' Home. The accommodation thus provided allowed the very unsuitable quarters, formed by the division into cubicles of a large war-time temporary ward, to be vacated. Owing to the great shortage of beds throughout the County, it was decided to remove the cubicle partitions and prepare this ward with its adjoining small ward and sanitary spur and kitchen as emergency accommodation for patients in case of need. The necessary alterations were carried out at a cost of about £100, and provision for from 60 to 80 additional cases resulted, although the nature of the provision could not be deemed satisfactory, except for use in emergency. Re-arrangement of the accommodation used for ante-natal examinations was also undertaken and twelve dressing boxes provided, thus greatly improving the conditions obtaining in this department.

The increase in the amount of pathological investigation, which modern methods of diagnosis and treatment demand, and the fact that specimens of pathological material were transmitted for examination from other County Council hospitals without pathological departments, rendered it necessary to appoint an additional laboratory assistant in this department. Advance in the science of radiology resulted in further methods of protection for patients and staff becoming available as well as for increasing the comfort of patients under treatment, and during the year £300 was spent in the application of certain of these methods to the apparatus at the North Middlesex County Hospital. Since the County Council assumed responsibility for the hospital in 1930, it has been appreciated that the existing maternity block is unsuitable for the purpose for which it is used and is not capable of conversion into a satisfactory maternity department. It has been considered, therefore, that the erection of a new maternity department should be proceeded with rather than any attempt made to improve the existing block. As result of the national demand for economy, however, the question of the erection of a new department was deferred, and in view of this some alteration to the existing block became inevitable. In May, therefore, the County Council approved alterations which would provide waiting and receiving-room accommodation, additional labour rooms, bath-rooms for babies, &c., at an estimated cost of £950. It was emphasised, however, that these improvements were to be considered as an emergency measure only and the erection of a new block was to be proceeded with as soon as practicable.

Edmonton House.—Owing to the pressure on accommodation in the institution, the Council decided to transfer certain resident nurses to the non-resident staff, and by alteration of their quarters obtained an additional dormitory for 25 women.

Enfield House.—Opportunity arose for the acquisition of a house adjoining this institution and the Council decided to purchase; thus by rearrangement of staff, &c., gaining accommodation for an additional 8–10 beds in the institution.

Chase Farm Schools.—One of the blocks of this institution is used in part as a creche and in part as a hospital for sick infants, whilst another is used for sick children from the schools themselves and from the North Middlesex County Hospital. The arrangements of these blocks, however, are not satisfactory, and the Council decided to undertake various alterations which would generally render the buildings more suitable for their purpose, providing, *inter alia*, a separate room for the preparation and storage of infants' food, isolation accommodation for infants suspected to be suffering from an infectious condition, additional baths for babies and young children and additional and more suitable sanitary appliances and fittings.

White Webbs.—Reference was made in last year's report to the acquisition of White Webbs as an institution for old men, thus affording some relief to various institutions in the County. During 1932 the adaptation, staffing and equipment were proceeded with.

Central Middlesex County Hospital.—The position with regard to this hospital has been anomalous since its inception, for although the front blocks of buildings were utilized for the accommodation of acute and chronic sick, the blocks in the rear of the site accommodated chronic sick persons, aged, infirm and able-bodied, and the whole establishment was classified as an institution under the administration of a Master, who in fact was also the Medical Superintendent.

The County Council decided that the increasing use of the establishment for the treatment of the sick and the administrative difficulties arising from its classification as an institution made it desirable to arrange for the removal of able-bodied persons to other institutions and the reservation of this establishment for the reception of sick only. Application was made to the Ministry of Health and as from 1st October, 1932, Central Middlesex County Hospital was officially classified as a hospital under the administrative control of a Medical Superintendent.

Whilst the complete removal of aged but healthy inmates has not yet been possible, many have been removed and during 1932 the Council agreed to the adaptation of the male block thus vacated as temporary quarters for nurses pending the enlargement of the nurses' home referred to in last year's annual report.

Towards the close of the year equipment of the new electrical treatment and X-ray department was in progress and a visiting electro-therapist, as well as a sister with experience in electro-therapy

were appointed. Earlier in the year an assistant sister-tutor was appointed in view of the increased nursing staff required under the new conditions, and in December it was decided to appoint an additional assistant medical officer.

Various improvements and additions to the hospital equipment were effected, including the provision of 350 bed tables for patients, the replacement of a motor ambulance, &c. Arrangements also were made to ensure an ambulance service being available throughout the whole day and night.

Arising out of the removal of able-bodied persons from the hospital, it was found necessary to replace their labour by paid staff at an estimated cost of £5,407 per annum.

Redhill County Hospital.—The urgent need for additional accommodation for nurses and for extensions of the hospital generally has been mentioned on several occasions and in last year's annual report account was given of various measures of a temporary character which were being undertaken pending the adoption of a complete scheme of extension of a permanent character. During 1932 the temporary out-patient department (with accommodation also for the almoner and her clerk) commenced the previous year, was completed and equipped, thus affording much needed relief to the work of the hospital and especially to the ante-natal clinic which has assumed considerable proportions. Pressure of work at the hospital also rendered necessary the appointment of additional staff, viz., a home sister, a sister in charge of out-patients, a sister in charge of the massage and light department, an assistant dispenser and six additional probationer nurses.

During the course of the year plans for the extension of the hospital referred to above received careful consideration, and in June the County Council approved in principle the extension of the hospital by the addition of a new three-storied ward block with approximately 120 beds, one or more floors to be used for the reception of maternity cases as proved necessary, a new X-ray department, substantial additions to the nurses' home, a new central hospital kitchen, and staff dining rooms, &c., the whole estimated to cost £134,125. In accordance with the terms of Section 13 of the Local Government Act, the Council's proposals were submitted to the Middlesex Voluntary Hospitals Advisory Committee for their observations and criticisms and subsequently to the Ministry of Health, whose decision is now pending.

Redhill Institution.—The adaptation and equipment of the Redhill Children's Home as an institution for aged male inmates, approved in 1931, was carried out at a cost of approximately £2,000, and the home was opened for its new purposes on 1st October, 1932.

Other works carried out at the institution include the provision of much needed additional male and female day-room accommodation.

Hillingdon County Hospital.—The total inadequacy of the existing accommodation for nurses at this hospital was referred to last year, as also was the fact that a satisfactory scheme for the enlargement of the nurses' home had been formulated in 1932 and extensions costing approximately £16,000 had been approved. Necessarily much time will elapse before the actual buildings are completed and ready for occupation and meanwhile the system of renting bedrooms for nurses in neighbouring houses has had to be extended; 31 additional bedrooms were so provided during the year. In June a complete scheme for the appointment of permanent nursing staff at the hospital and institution was approved by the Council, and the gradual replacement of temporary staff should lead to economy and efficiency.

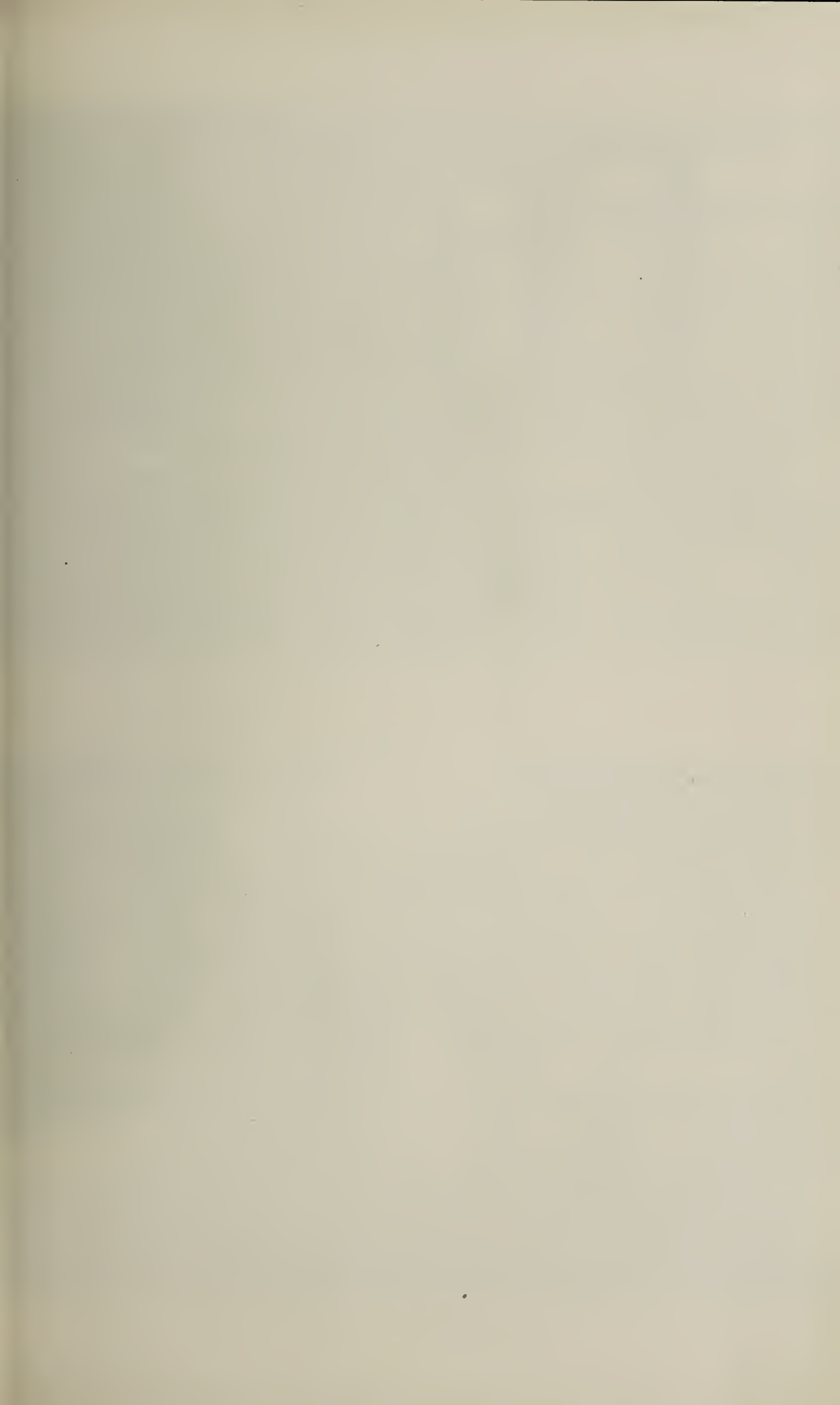
The appointment of the acting matron of the hospital as matron of the newly established home for aged men at White Webbs (see earlier in this report) created a vacancy for matron of the hospital which was filled by the appointment of Miss Laing. The matron of the adjoining institution also found it necessary to relinquish her appointment on account of ill health and it was decided to appoint Miss Laing to the combined post of matron of both hospital and institution. Having regard to the relatively small size of the hospital and the large numbers of sick persons accommodated in the institution, this arrangement should prove advantageous.

As a temporary measure the County Council rented a small house within a short distance of the hospital as a residence for the medical superintendent pending the erection of more adequate quarters on the hospital site. Progress was made in improving the accommodation provided in the original hospital block by the laying down of composition floors, improvements in the sanitary arrangements, &c., and various additions to the hospital equipment were provided during the year, amongst which may be mentioned a modern operating table, a pantostat, a Potter Bucky diaphragm and new maternity and labour beds.

Hillingdon Institution.—Mention has been made of the resignation of Mrs. Scrivens, the matron of the institution. As she was a resident officer and held her appointment jointly with her husband, who was master, the post of master automatically became vacant. It was decided to re-appoint Mr. Scrivens as non-resident master and to allow him to retain his office of steward of the hospital.

During the year the enlargement of the central kitchen, approved in 1931, was proceeded with and various improvements carried out, including the provision of lavatory basins in the wards for sick inmates.

West Middlesex County Hospital.—The opening of the new maternity wing and ward block, containing the electrical and X-ray departments has already been referred to. These extensions, which were commenced by the late Board of Guardians, were completed and equipped by the County Council. The following extracts and illustrations from the official programme of the opening ceremony afford information as to the nature and extent of the additions to the hospital.



The opening of the new extension rendered available for patients a group of three wards which previously had been utilized for the X-ray department, beds for sick staff, &c. It was necessary that these wards should be renovated and rendered suitable for the reception of patients and the opportunity was seized to modernise them and bring them up to the standard of accommodation now required for the treatment of the sick. The estimated cost of the works decided upon was approximately £2,000 and for this sum heating by radiators in lieu of central stoves, renovation of the floors, installation of wash basins in the wards, improvements in the sanitary arrangements and fittings and other works were carried out.

The policy of dealing with transferred hospitals by arranging a plan of systematic modernisation of the accommodation, dealing with one section of the hospital each year, is being generally adopted and should result in great improvement being effected without excessive expenditure at any one time and also with the least inconvenience to the working of the hospitals.

Consequent upon the extensions of the hospital the County Council approved various additions to the staff of the hospital, at an estimated annual cost of £6,707, and during the year an additional assistant medical officer, a visiting ophthalmic surgeon, an additional assistant dispenser, as well as sisters, staff nurses, probationers and ward orderlies were appointed.

Throughout the year, additions and replacements of medical and surgical equipment were made as needed, amongst which may be mentioned the replacement of an old portable X-ray set, the provision of an additional diathermy apparatus, and a modern appliance for the induction of gas anæsthesia. As in the case of Central Middlesex County Hospital, arrangements were made to provide a continuous 24-hours' ambulance service.

Warkworth House.—In order to provide additional beds for the chronic sick, the receiving ward block of this institution, which had ceased to be a necessity, was converted into accommodation for 22 patients, and four single bed wards which were occupied by members of the staff also were rendered available for patients. The maternity block, which was vacated upon the opening of the new maternity block in the West Middlesex County Hospital, also was used for chronic cases before the close of the year, although it had been hoped this could have been reserved for special purposes. Food lifts were installed in three ward blocks and improvement in sanitary arrangements in two wards were undertaken during the year.

Staines Institution.—The chief improvement at this institution decided upon during the year was the extension of the male and female day rooms at an estimated cost of £600.

The foregoing account deals only with the subject of institutional treatment of the sick, but the County Council's responsibilities include also the provision of domiciliary medical attention and treatment of poor persons, where this is required. This latter service is under the general control of the Out-relief and General Purposes Sub-Committee of the Public Health and Public Assistance Committee of the County Council, and local administration is carried out by the local guardians committees, instituted in accordance with section 7 of the Local Government Act, 1929.

The work of domiciliary medical attendance is carried out by duly appointed medical practitioners, who are termed district medical officers, all of whom also are engaged in private general medical practice. There are 60 such officers employed by the County Council, and during 1932 they made 24,422 visits to necessitous patients in their own homes, whilst 24,347 attendances were paid by similar patients to the doctors at their surgeries.

The general supervision of the work of the district medical officers, and in fact of all medical work transferred to the County Council by the Local Government Act, 1929, is carried out by the County Medical Officer and his staff, and the provision of special surgical appliances, dental treatment, &c., and the sending of patients to convalescent homes, special hospitals, epileptic colonies, &c., is arranged through the County Medical Officer's department. The extent of the latter branch of work can be judged from the fact that during the year 699 persons were sent to convalescent homes, 56 to special hospitals and homes, and 21 to epileptic colonies. At the close of the year 273 patients were being maintained by the County Council in such establishments.

Apart from the arrangements made directly by the County Council for the care of the sick, what may be termed indirect provision also is made. It was ascertained that certain of the late Boards of Guardians gave grants to voluntary hospitals in the County and in London, and in return for these grants Middlesex residents were dealt with at these hospitals without necessarily having previously applied for Poor Law relief. Similarly, grants were paid to certain district nursing associations in the County, in order that the services of the nurses might be available in the case of necessitous persons who were under treatment by district medical officers and requiring such assistance. These grants have been continued by the County Council, and at the present time an attempt is being made to bring the grant paid to each individual association into equitable relationship with the amount of work carried out by the association in respect of attendance upon necessitous persons. For the financial year 1932–33 the total amount paid by the County Council to voluntary hospitals by way of grants was £409 10s. and the sum paid to district nursing associations was £608 19s.

North Middlesex County Hospital.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical	5	78	77	87	84	29	22	194	183
Surgical	7	114	96	114	103	12	9	240	208
Chronic sick*	7	70	70	141	141	—	—	211	211
Children	1	—	—	—	—	40	34	40	34
Venereal	—	—	—	—	—	—	—	—	—
Tuberculosis ..	—	12	12	19	19	6	6	37	37
Isolation	—	—	—	—	—	—	—	—	—
Maternity block..	1	—	—	57	57	—	—	57	57
Mental	2	13	12	13	6	—	—	26	18
Mental defectives	—	9	9	—	—	—	—	9	9
Other :—									
Epilepsy	—	6	6	6	6	—	—	12	12
Senile Dementia	1	9	9	55	55	—	—	64	64
TOTAL	24	311	291	492	471	87	71	890	833

20 balcony beds (available in summer only) for tubercular patients	Occupied	31.12.32,	Nil.
56 cots for maternity infants	.. .. .	Occupied	31.12.32, 44.

<p>Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.</p>	<p>The out-patient department provides for treatment of casualties, after-care, consultations and treatment in special departments. These departments are as follows :— (1) General medical ; (2) General surgical ; (3) Ear, nose</p>
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he out-patient department provides for treatment of casualties, after-care, consultations and treatment in special departments. These departments are as follows :— (1) General medical ; (2) General surgical ; (3) Ear, nose and throat ; (4) Ophthalmic ; (5) Massage ; (6) Antenatal ; (7) Casualties ; (8) Dental ; (9) Electro-therapeutic ; (10) Radium and Röntgen deep and superficial therapy ; (11) Diagnostic X-ray ; (12) Fractures clinic ; (13) Ultra-violet light ; (14) Varicose veins clinic.

8,920 excluding ante-natal.

602 do.

1,076	do.
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0,397.

1,134—attendances 6,269.

Edmonton House.

ACCOMMODATION FOR THE SICK AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Chronic sick*	9	95	91	120	116	—	—	215	207
Total	9	95	91	120	116	—	—	215	207

* See note on page 15.

Enfield House.

ACCOMMODATION FOR THE SICK AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Chronic sick*	7	17	23	52	52	—	—	69	75
Mental defectives	8	47	46	—	—	3	3	50	49
Epilepsy	—	—	—	—	1	—	—	—	1
Total	15	64	69	52	53	3	3	119	125

* See note on page 15.

Fortescue Villas, Enfield.

ACCOMMODATION FOR MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Mental defectives	—	—	—	4	4	29	29	33	33
Total	—	—	—	4	4	29	29	33	33

Chase Farm Schools.

ACCOMMODATION FOR THE SICK, AND THE NUMBER OF BEDS OCCUPIED ON THE
31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Chronic sick* (adults) ..	4	—	—	37	37	—	—	37	37
Sick children from Chase Farm Schools	6	—	—	—	—	73	21	73	37
Sick children from North Middlesex County Hospital							16		
Isolation	4	—	—	—	—	45	—	45	—
Total	14	—	—	37	37	118	37	155	74

* See note on page 15.

Edgbury Convalescent Home.

ACCOMMODATION FOR THE SICK, AND THE NUMBER OF BEDS OCCUPIED ON THE
31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical	11	—	—	74	60	—	7	74	67
Total	11	—	—	74	60	—	7	74	67

Central Middlesex County Hospital.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical	8	116	108	138	114	—	32	254	254
Surgical	4	50	44	50	46	—	10	100	100
Chronic sick*	3	88	88	151	146	—	5	239	239
Children	2	—	—	—	—	70	51	70	51
Venereal	—	—	—	4	1	—	—	4	1
Tuberculosis ..	—	9	4	8	8	—	—	17	12
Isolation	—	—	—	—	—	—	—	—	—
Maternity	1	—	—	14	14	—	—	14	14
Mental	2	7	1	7	2	—	—	14	3
(a) Short stay ..									
(b) Long stay ..									
Mental defectives ..	—	—	—	28	28	—	—	28	28
Nursery	—	—	—	10	—	—	—	10	—
Total	20	270	245	410	359	70	98	750	702

* See note on page 15.

Extent of provision for Out-Patients.

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.

Casualties, massage, electrical treatment, x-ray, after-treatment of injuries.

Total number of persons seen in the out-patient department. 722.

Number of these persons who were admitted for in-patient treatment. 31.

Number of these persons who had received in-patient treatment. 72.

Total number of attendances in the out-patient department. 1,396.

Ante-natal clinic

{

Number of women seen .. 391.

Total number of attendances 894.

Redhill County Hospital.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Oeeu- pied.
Medical	2	32	10	30	22	—	5	62	37
Surgical	2	30	31	28	28	—	9	58	68
Chronic sick*	—	—	—	—	—	—	—	—	—
Children	1	—	—	—	—	24	19	24	19
Venereal	—	—	—	—	—	—	—	—	—
Tuberculosis	—	—	—	—	—	—	—	—	—
Isolation	—	—	—	—	—	—	—	—	—
Maternity	1	—	—	25	21	—	—	25	21
Mental	—	—	—	—	—	—	—	—	—
(a) Short stay	—	—	—	—	—	—	—	—	—
(b) Long stay	—	—	—	—	—	—	—	—	—
Mental defectives	—	—	—	—	—	—	—	—	—
Ear, nose and throat ..	2	7	2	8	3	6	15	21	20
Total	8	69	43	91	74	30	48	190	165

* See note on page 15.

Extent of provision for Out-Patients.

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.	In-patients made out-patients, casualties and patients sent for consultation, or otherwise, are seen in the following out-patients departments:—General medical, general surgical, ear, nose and throat, x-ray, and massage, daily; electro-therapeutic and ultra-violet light, daily; ante-natal, post-natal and dental, each twice weekly; orthopaedic, head injury clinic and varicose vein clinic, each once weekly.
Total number of persons seen in the out-patient department.	3,249
Number of these persons who were admitted for in-patient treatment.	63 + 483 ante-natal.
Number of these persons who had received in-patient treatment.	497.
Total number of attendances in the out-patient department.	11,583.
Ante-natal elinic, number of women seen and the total number of attendances.	652 and 2,450.

Redhill Institution.

ACCOMMODATION FOR THE SICK AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Chronic sick*	7	42	36	81	79	—	—	123	115
Tuberculosis	—	—	3	—	2	—	—	—	5
Mental	—	—	—	—	—	—	—	—	—
Total	7	42	39	81	81	—	—	123	120

* See note on page 15.

West Middlesex County Hospital.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical	13	108	106	133	132	—	—	241	238
Surgical	4	45	38	45	45	—	—	90	83
Chronic sick*	—	—	—	—	—	—	—	—	—
Children	9	—	—	—	—	119	79	119	79
Venereal	—	—	—	—	—	—	—	—	—
Tuberculosis	4	16	12	17	17	—	—	33	29
Isolation	—	—	—	—	—	16	13	16	13
Maternity	12	—	—	31	30	—	—	31	30
Mental									
(a) Short stay	—	—	—	—	—	—	—	—	—
(b) Long stay	—	—	—	—	—	—	—	—	—
Mental defectives	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—
Total	42	169	156	226	224	135	92	530	472

* See note on page 15.

Extent of provision for Out-Patients.

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.

Only provided for continuation of treatment after patients have left the hospital.

Number of attendances in the out-patient department.	Electrical treatment	6,865
	Massage	2,279
	X-ray treatment	120
	Total	9,264

Ante-natal clinic

{

Number of women seen 753

Total number of atten-

dances 2,877

Warkworth House.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN (Under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Chronic sick*	35	194	166	293	291	—	—	487	457
Maternity	—	—	—	—	—	—	—	—	—
Mental—									
(a) Short stay	2	10	1	10	5	—	—	20	6
(b) Long stay	7	34	9	82	17	15	11	131	26
Mental defectives			1		4				16
Other mental cases	—	—	30	—	72	—	4	—	106
Total	44	238	207	385	389	15	15	638	611

* See note on page 15.

Ante-natal clinic (pending opening of new department in West Middlesex County Hospital on the 13th February, 1932), number of women seen, 77 ; Total number of attendances, 244.

Hillingdon County Hospital.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN (Under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical	2	17	16	17	9	—	6	34	31
Surgical	2	32	20	36	7	—	11	68	38
Children	—	—	—	—	—	17	17	17	17
Tuberculosis	—	—	4	—	4	—	1	—	9
Isolation	2	—	—	1	—	8	6	9	6
Maternity	1	—	—	12	5	—	—	12	5
Total	7	49	40	66	25	25	41	140	106

Extent of provision for Out-Patients.

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.

Former in-patients.
Sick casuals.
Inmates of house section.
Cases referred through relieving officers on doctor's recommendation for opinion.
Casualties.

Total number of persons seen in the out-patient department, 1,959.

Number of these persons who were admitted for in-patient treatment, 411.

Number of these persons who had received in-patient treatment, 247.

Total number of attendances in the out-patient department, 6,113.

Ante-natal clinic, number of women seen and the total number of attendances, 265—518.

Hillingdon Institution.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Chronic sick*	8	52	70	51	66	—	—	103	136
Mental—									
Short stay	2	2	1	2	2	—	—	4	3
Mental defectives ..	—	—	4	—	1	—	—	—	5
TOTAL	10	54	75	53	69	—	—	107	†144

* See note on page 15.
† This number is in excess of beds provided owing to extra beds crowded into sick wards.

Staines Institution.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1932.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN (Under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical	2	4	4	6	5	1	1	11	10
Surgical	2	4	2	4	—	—	—	8	2
Chronic sick*	8	53	52	45	38	—	—	98	90
Maternity	2	—	—	8	1	—	—	8	1
Mental	2	2	—	2	—	—	—	4	—
Mental defectives ..	—	—	—	1	1	—	—	1	1
Other	4	1	1	—	—	10	4	11	5
Total ..	20	64	59	66	45	11	5	141	109

* See note on page 15.

STATISTICS RELATING TO IN-PATIENTS DEALT WITH AT THE COUNTY HOSPITALS AND INSTITUTIONS DURING THE YEAR ENDED 31ST DECEMBER, 1932.

Local Government Act, 1929.

	North Middlesex County Hospital.	Edmonton House.	Enfield House.	Fortescue Villas.	Chase Farm Schools. <div>Cases transferred from County Hospitals and Institutions.</div>	Edgbury Con- valescent Home.	Central Middlesex County Hospital.	Redhill County Hospital.	Redhill Institu- tion.	West Middlesex County Hospital.	Wark- worth House.	Hillingdon County Hospital.	Hillingdon Institu- tion.	Staines Institu- tion.
Total number of admissions (in- cluding infants born in hospital)	11,245	357	*	2	194	448	4,412	3,506	560	5,711	1,483	2,032	513	283
Number of women confined in hospital	1,197	—	—	—	—	—	361	520	—	641	44	160	—	6
Number of live births	1,145	—	—	—	—	—	341	508	—	613	43	150	—	5
Number of still births	74	—	—	—	—	—	24	21	—	37	1	12	—	1
Number of deaths among the newly-born (<i>i.e.</i> , under four weeks of age)†	43	—	—	—	—	—	9	17	—	21	—	6	—	—
Total number of deaths among children under one year	103	—	—	—	1	—	55	36	2	87	—	15	—	1
Number of maternal deaths among women confined in hospital	2	—	—	—	—	—	1	6	—	6	—	7	—	—
Total number of deaths	1,535	114	35	—	12	3	616	205	221	749	338	140	156	63
Number of discharges (including infants born in hospital)	9,713	250	31	2	191	452	3,784	3,311	334	4,876	1,125	1,850	388	212
Duration of stay of patients— (<i>a</i>) four weeks or less	8,798	217	—	—	90	274	3,058	3,148	319	3,745	884	1,698	346	187
(<i>b</i>) four to thirteen weeks	2,030	78	—	—	88	137	928	298	152	1,450	330	211	100	42
(<i>c</i>) exceeding thirteen weeks	420	69	66	2	25	44	414	70	84	430	249	81	98	46
Number of beds occupied— (<i>a</i>) Average during the year	862	211	122	32	90	77	757	190	111	477	618	108	178	108
(<i>b</i>) Highest	929	215	130	33	106	82	817	213	122	542	644	144	179	119
(<i>c</i>) Lowest	782	205	113	32	66	59	667	143	93	385	594	84	129	98
Number of surgical operations under general anaesthetic (ex- cluding dental operations)	4,904	—	—	—	—	—	639	1,716	—	1,917	—	1,247	—	—
Number of abdominal sections	1,092	—	—	—	—	—	375	242	—	274	—	178	—	—

* Patients are admitted to the wards for the sick from the other wards of the institution and owing to frequent interchange it is not possible to give an accurate figure of admissions to the sick wards.

† Relating only to children born in hospital.

STATISTICS RELATING TO IN-PATIENTS DEALT WITH IN THE MATERNITY DEPARTMENTS OF THE COUNTY
HOSPITALS AND INSTITUTIONS DURING THE YEAR ENDED 31ST DECEMBER, 1932.

	North Middlesex County Hospital.	Central Middlesex County Hospital.	Redhill County Hospital.	West Middlesex County Hospital.*	Hillingdon County Hospital.	Staines Institu- tion.
Number of beds	57	14	25	31 (+16)	12	8
Number of cases admitted during the year	1,353	375	520	641 (+44)	165	6
Average duration of stay (in days)	14	12	13	14	14	10-14
Number of women delivered by—						
(a) Midwives	1,080	347	485	603 (+42)	136	6
(b) Doctors	117	14	35	38 (+2)	24	—
Number of cases in which medical assistance was sought by a midwife ..	155	19	141	136 (+9)	—	—
Number of cases notified as—						
(a) Puerperal fever ..	10	—	16	1	3	—
(b) Puerperal pyrexia ..	15	4	20	25 (+2)	10	—
Number of cases of pemphigus neonatorum	1	—	—	—	—	—
Number of infants not en- tirely breastfed while in the Institution	178	7	24	36 (+1)	16	—
Number of cases notified as ophthalmia neonatorum ..	2	1	—	—	3	—
Number of maternal deaths..	4	3	8	6	7	—
Cause of death in each case—						
Puerperal sepsis.. ..	1	—	5	—	—	1
Toxæmias of pregnancy	—	—	—	1	2	—
Ruptured ectopic gesta- tion	—	—	1	—	—	—
Placenta prævia	1	—	—	—	—	—
Ruptured uterus	—	1	1	—	—	—
Post-partum hæmor- rhage	—	—	—	2	1	—
Shock	—	—	—	1	—	—
Morbus cordis	—	—	1	—	1	—
Pulmonary embolism ..	—	—	—	—	1	—
Pneumonia	2	1	—	—	—	—
Pulmonary tuberculosis	—	—	—	—	1	—
Cerebro-spinal meningi- tis	—	1	—	—	—	—
Other conditions	—	—	—	2	—	—
Number of foetal deaths—						
(i) Still-born	74	24	21	37 (+1)	12	1
(ii) Within 10 days of birth	33	9	11	21	6	—
Cause of death in each case—						
Still-births—						
Maternal conditions ..	31	5	5	8	—	—
Complications of labour	21	12	13	20	11	—
Foetal states	16	1	3	4	1	—
Unknown	6	6	—	5 (+1)	—	1

	North Middlesex County Hospital.	Central Middlesex County Hospital.	Redhill County Hospital.	West Middlesex County Hospital.*	Hillingdon County Hospital.	Staines Institu- tion.
Neo-natal deaths—						
Prematurity	16	5	9	11	1	—
Birth injury	11	1	—	3	3	—
Asphyxia	2	1	—	—	1	—
Developmental defects ..	2	2	—	5	—	—
Penumonia	1	—	—	—	—	—
Ante-natal toxæmia ..	—	—	—	2	1	—
Malæna neonatorum ..	1	—	—	—	—	—
Unknown	—	—	2	—	—	—

* The figures in brackets refer to maternity cases in Warkworth House up to 13th February, 1932, when the Maternity Department was transferred to Middlesex County Hospital.

CLASSIFICATION OF IN-PATIENTS WHO WERE DISCHARGED FROM OR WHO DIED
31ST DEC

DISEASE GROUPS.	North Middlesex County Hospital.		Edmonton House.		Enfield House.		Fortescue Villas.		Chase Farm Schools.	
	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Cases transferred from County Hospitals & Institutions.	
									Children.	Women.
A. Acute infectious disease (1)*	54	84	—	—	—	—	—	—	26	—
B. Influenza (2)	16	83	—	27	—	5	—	—	—	—
C. Tuberculosis—										
Pulmonary	4	177	—	—	—	—	—	—	1	—
Non-pulmonary	45	36	—	—	—	—	—	—	12	—
D. Malignant disease	—	378	—	4	—	—	—	—	—	1
E. Rheumatism—										
(a) Acute rheumatism (rheumatic fever), together with sub-acute rheumatism and chorea ...	49	42	—	—	—	—	—	—	36	—
(b) Non-articular manifestations of so-called “rheumatism” (muscular rheumatism, fibrositis, lumbago and sciatica) ...	—	28	—	—	—	—	—	—	—	—
(c) Chronic arthritis	3	90	—	—	—	—	—	—	—	—
F. Venereal disease	—	5	—	—	—	—	—	—	—	—
G. Puerperal pyrexia	—	15	—	—	—	—	—	—	—	—
H. Puerperal fever—										
(a) Women confined in the hospital	—	10	—	—	—	—	—	—	—	—
(b) Admitted from outside ...	—	—	—	—	—	—	—	—	—	—
I. Other diseases and accidents connected with pregnancy and childbirth	—	327	—	—	—	—	—	—	—	—
J. Mental diseases—										
(a) Senile dementia	—	28	—	—	—	7	—	—	—	—
(b) Other	10	506	—	—	—	11	2	—	—	—
K. Senile decay (3)... ..	—	94	—	75	—	7	—	—	—	—
L. Accidental injury and violence (4) ...	238	811	—	1	—	—	—	—	10	—
In respect of cases not included above :										
M. Disease of the nervous system and sense organs	193	482	—	22	—	2	—	—	16	2
N. Disease of the respiratory system ...	296	566	—	95	—	9	—	—	54	1
O. ,, circulatory system ...	14	695	—	140	—	17	—	—	4	8
P. ,, digestive system ...	357	1,514	—	—	—	3	—	—	15	—
Q. ,, genito-urinary system	50	585	—	—	—	4	—	—	6	—
R. ,, skin	87	204	—	—	—	1	—	—	11	—
S. Other diseases... ..	183	368	—	—	—	—	—	—	—	—
T. Mothers and infants discharged from maternity wards and not included in above figures :—										
(a) Mothers	—	1,329	—	—	—	—	—	—	—	—
(b) Infants	1,192	—	—	—	—	—	—	—	—	—
U. Healthy	—	—	—	—	—	—	—	—	—	—
Total	2,791	8,457	—	364	—	66	2	—	191	12

* (1) Including—with the exception of influenzal pneumonia, tuberculosis, puerperal pyrexia and puerperal fever—all generally notifiable diseases, together with measles, German measles, chickenpox, whooping cough and mumps. Cases of influenzal pneumonia, tuberculosis, puerperal pyrexia and puerperal fever are recorded respectively among Groups B, C, G and H. Cases of encephalitis lethargica are entered under Group A if acute and under Group M if chronic.

(2) Including acute influenzal pneumonia.

(3) Confined to cases and deaths in which no more specific diagnosis was practicable.

(4) Including suicides, attempted suicides and poisoning cases.

HOSPITALS IN MIDDLESEX (OTHER THAN THOSE BELONGING TO THE COUNTY COUNCIL).

In the early part of 1931, a conference was held between representatives of the County Council and the Middlesex Voluntary Hospitals Association with a view to consideration of the general question of the relationship between the County Council's hospitals and the voluntary hospitals in the County.

During the course of the conference it was apparent that there was not in existence sufficient detailed information with regard to the work of individual voluntary hospitals to enable any useful conclusions to be arrived at. Accordingly it was decided that a questionnaire should be drawn up and circulated to all the voluntary hospitals, with a view to obtaining accurate and comparable information with regard to each.

The questionnaire was approved by the Chairman of the Public Health and Public Assistance Committee of the County Council and also by the Chairman of the Middlesex Voluntary Hospitals Association, The Rt. Hon. Lord Glenconner, and circulated as arranged. Based upon the information contained in the questionnaires when completed, the following tables have been prepared, which show that on 31st December, 1931, there were in the County 24 voluntary hospitals providing accommodation for a total of 1,216 patients. The tables also afford useful information as to the staffing of the hospitals and the nature and extent of the work carried out therein.

In addition to the hospitals specified in the tables, there are a number of other hospitals situated in Middlesex, and either voluntary or belonging to local authorities other than the County Council; these provide treatment of certain specialised conditions and may be classified as follows:—

- (a) Hospitals such as Mount Vernon Hospital for Cancer, Northwood; St. Vincent's Orthopædic Hospital, Pinner; Royal National Orthopædic Hospital, country branch, Stanmore. These hospitals, although situated in Middlesex, are not primarily for the treatment of Middlesex residents. The majority of the cases treated therein come from London or other parts of the country.
- (b) Maternity hospitals provided by local maternity and child welfare authorities, *e.g.*, Willesden, Chiswick and Ealing.
- (c) Infectious disease hospitals established by the local sanitary authorities of Middlesex.
- (d) Special hospitals belonging to the London County Council and maintained for the reception of London cases:—

North-Eastern Fever Hospital, Tottenham;
 Mental Hospitals at Colney Hatch and Hanwell;
 Epileptic Colony, Edmonton;
 Tuberculosis Hospital, Colindale, Hendon;
 Northern Hospital, Winchmore Hill, for convalescent fever, tuberculosis and post-encephalitis lethargica.

TABLE I.
VOLUNTARY
POSITION—PUB

Hospital.	Freehold Site.	Number of Separate Buildings.	Modern Construction.	Building Materials.	Lift.	Water Supply.	
						Source.	Adequate.
Acton	Yes	Two	Yes	Brick	Yes	Main	Yes
Brentford	Yes	One	Yes	Brick	Yes	Main	Yes
Chiswick	Yes	One	Yes	Concrete	Yes	Main	Yes
Ealing (King Edward Memorial)	Yes	Three	Yes	Brick	Yes	Main	Yes
Enfield War Memorial	Yes	Two	Yes	Brick	Yes (Goods)	Main	Yes
Finchley Memorial	Yes	One	Yes	Brick	Yes	Main	Yes
Hampton (St. Mary's)	Yes	One	Yes	Brick	No	Main	Yes
Hanwell Cottage	Yes	One	Yes	Brick	No	Main	Yes
Harlington, Harmondsworth and Cranford Cottage	Not stated	One	1884	Brick	No	Well	Yes
Hayes Cottage	Yes	Two	Yes	Brick	No	Main	Yes
Harrow and Wealdstone	Yes	Three	Yes	Brick and concrete	Yes	Main	Yes
Hendon (King Edward Memorial Cottage)	Yes	Two	Yes	Brick	No	Main	Yes
Hornsey Central	999 years	Two	Yes	Part brick and part temporary	One storey	Main	Yes
Hounslow	Yes	One	Yes	Brick	One storey	Main	Yes
Northwood, Pinner and District	Yes	One	Yes	Brick	No	Main	Yes
Potters Bar Cottage	No	One	No	Brick	One storey	Main	Yes
Staines Cottage	Yes	One	Yes	Brick	One storey	Main	Yes
Teddington and Kingston Cottage	Yes	Two	Yes	Brick	No	Main	Yes
Tottenham (Prince of Wales's General)	Yes	Two	1883	Brick	Yes	Main	Yes
Twickenham (St. John's)	Yes	One	Yes	Brick	No	Main	Yes
Uxbridge and Hillingdon Cottage	Yes	One	Yes	Brick	Yes	Main	Yes
Wembley	Yes	Two	Yes	Part brick and part temporary	Dinner lift	Main	Yes
Willesden General	Yes	Several	Yes	Brick	One storey	Main	Yes
Wood Green (Passmore Edwards)	Yes	Three	No	Part brick and part temporary	No	Main	Yes

HOSPITALS.

LIC SERVICES, &C.

Sewage Disposal.	Heating.	Lighting.	Fire Precautions.				No. of Wards.		Number of Theatres	O.P. Dept.
			Hose.	Extinguishers.	Escape.	Supervision of Fire Brigade.	Public.	Private.		
Public	Central and fires	Electric	—	+	—	—	4	9	2	Yes
Public	Central and gas fires	Electric	—	+	+	—	6	4	1	Yes
Public	Central	Electric	—	+	—	—	4	—	1	No
Public	Central, coal and gas fires	Electric	+	+	—	+	9	7	1	Casualties only
Public	Central and fires	Electric	+	+	—	—	5	2	1	No
Public	Central	Electric	+	+	+	—	5	7	2	No
Public	Central and fires	Electric	—	+	—	—	4	2	1	No
Public	Central and fires	Electric	—	+	+	+	3	1	1	Casualties only
Cesspool	Open fires	Gas	—	+	—	—	2	—	1	No
Public	Central and gas	Electric	—	+	—	—	3	1	1	Casualties only
Public	Central	Electric	—	+	+	—	8	8	2	Casualties only
Public	Central	Electric	—	+	+	—	6	5	1	No
Public	Central and fires	Electric	—	+	—	+	4	5	1	Yes
Public	Central	Electric	—	+	—	—	3	2	1	Yes
Public	Central	Electric	—	+	—	—	3	9	1	Yes
Public	Central	Electric	+	—	—	—	2	2	1	Yes
Public	Central	Electric	—	+	—	—	3	3	1	Yes
Public	Central	Electric	—	+	—	—	2	2	—	No
Public	Central	Electric	+	+	—	—	10	—	3	Yes
Public	Central and fires	Electric	—	+	—	+	3	1	1	Yes
Public	Central	Electric	—	+	+	—	5	—	1	No
Public	Central	Electric	+	+	—	+	3	7	1	Casualties only
Public	Central	Electric	—	+	—	—	5	13	2	Yes
Public	Central and fires	Electric	—	+	—	+	3	6	1	No

+ equals service provided.

TABLE II.
VOLUNTARY
ADMINISTRATIVE,

Hospital.	Nursing Staff Housed.					Domes	
	Nurses' Home.	Main Building.	Adjoining Houses.	Accommodation Adequate.	Number can be Accommodated.	Nurses' Home.	Main Building.
Acton	Yes	—	—	Yes	35	Yes	—
Brentford	—	Yes	Yes	Yes	11	—	Yes
Chiswick	Yes	—	—	Yes	16	Yes	—
Ealing (King Edward Memorial)	—	Yes	Yes	Yes	58	—	—
Enfield War Memorial	—	Yes	Yes	Yes	25	—	Yes
Finchley Memorial	—	Yes	Yes	No	23	—	Yes
Hampton (St. Mary's)	—	Yes	—	Yes	5	—	Yes
Hanwell Cottage	—	Yes	—	Yes	5	—	Yes
Harlington, Harmondsworth and Cranford Cottage	—	Yes	—	No	2	—	Yes
Hayes Cottage	—	Yes	Yes	Yes	7	—	Yes
Harrow and Wealdstone	Yes	Yes	—	No	26	—	Yes
Hendon (King Edward Memorial Cottage)	—	Yes	—	Barely	15	—	Yes
Hornsey Central	Yes	—	—	Yes	25	—	Yes
Hounslow	—	—	Yes	Yes	26	—	Yes
Northwood, Pinner and District	—	Yes	—	Yes	14	—	Yes
Potters Bar Cottage	—	Yes	—	Fair	4	—	Yes
Staines Cottage... ..	—	Yes	—	Yes	10	—	Yes
Teddington and Kingston Cottage	—	Yes	—	No	—	—	Yes
Tottenham (Prince of Wales's General)	Yes	Yes	—	Yes	100	—	—
Twickenham (St. John's)	Yes	—	Yes	—	16	Yes	—
Uxbridge and Hillingdon Cottage	—	Yes	—	Yes	10	—	Yes
Wembley	—	Yes	—	No	13	—	Yes
Willesden General	Yes	—	Yes	Yes	63	Yes	Yes
Wood Green (Passmore Edwards)	—	Yes	—	Yes	20		Yes

† In separate block built for the purpose.

HOSPITALS.

&c., ACCOMMODATION.

tic Staff Housed.			Kitchen, &c., Adequate.	Post Office Telephone.	Internal Telephone.	Laundry.	Disin- fecter.	Ambu- lance (Hand or Motor).	Mortuary.	Patho- logical Labora- tory.
Adjoining Houses.	Accom- modation Adequate.	Number can be Accom- modated.								
—	Yes	12	Yes	Yes	Yes	No	No	No	Yes	No
—	—	4	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	10	Yes	Yes	No	No	No	No	Yes	No
†Yes	Yes	24	Yes	Yes	Yes	No	No	No	Yes	Yes
Yes	Yes	8	Yes	Yes	Yes	No	No	No	Yes	No
—	—	9	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	3	Yes	—	—	—	—	—	—	—
—	Yes	2	Yes	Yes	No	No	No.	No	Yes	No
—	No	1	Yes	Yes	No	No	No	No	Yes	No
Yes	Yes	3	Yes	Yes	No	No	No	Yes	Yes	No
—	No	10	Yes	Yes	Yes	No	No	No	No	No
—	Barely	6	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	10	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	12	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	7	Yes	Yes	Yes	No	No	No	Yes	No
—	Fair	3	Yes	Yes	No	Hand	No	No	Yes	—
—	Yes	3	Yes	Yes	No	No	No	No	Yes	No
Yes	No	—	Yes	Yes	No	No	No	No	No	No
Yes	Yes	20	Yes	Yes	Yes	Hand	Yes	Hand	Yes	Yes
—	Yes	4	Yes	Yes	No	No	No	No	Yes	No
—	Yes	5	Yes	Yes	No	No	No	No	Yes	No
—	—	6	Yes	Yes	Yes	No	No	No	No	No
—	Yes	22	Yes	Yes	Yes	No	Yes	No	Yes	Yes
—	Yes	12	Yes	Yes	Yes	No	No	No	Yes	No

III.

HOSPITALS.

TION OF BEDS.

PUBLIC WARDS (BEDS).

Ear, Nose and Throat.			Gynæco-logical.	Venereal.		Not Classified.			Total Public Beds.			PRIVATE BEDS.	TOTAL BEDS.
Males.	Females.	Children.		Males.	Females.	Males.	Females.	Children.	Males.	Females.	Children.		
—	—	—	—	—	—	15	21	15	15	21	15	11	62
—	—	—	—	—	—	7	7	6	7	7	6	7	27
—	—	—	—	—	—	8	18	17	8	18	17	—	43
—	—	4	10	—	—	3	3	1	39	43	20	7	109
—	—	—	—	—	—	14	16	20	14	16	20	3	53
—	—	—	—	—	—	14	20	12	14	20	12	9	55
—	—	—	—	—	—	6	5	5	6	5	5	2	18
—	—	—	—	—	—	6	6	3	6	6	3	1	16
—	—	—	—	—	—	3	3	1	3	3	1	1	8
—	—	—	—	—	—	6	6	2	6	6	2	1	15
—	—	—	—	—	—	20	25	13	20	25	13	13	71
—	—	—	—	—	—	22	23	—	22	23	—	5	50
—	—	—	—	—	—	12	22	10	12	22	10	4	48
—	—	—	—	—	—	—	—	—	29	29	14	—	72
—	—	—	—	—	—	12	8	6	12	8	6	11	37
—	—	—	—	—	—	5	5	2	5	5	2	—	12
—	—	—	—	—	—	5	12	8	5	12	8	3	28
—	—	—	—	—	—	12	12	4	12	12	4	2	30
3	3	3	12	1	1	—	—	—	84	81	36	—	201
—	—	—	—	—	—	14	14	5	14	14	5	1	34
—	—	—	—	—	—	12	13	2	12	13	2	2	29
—	—	—	—	—	—	14	14	6	14	14	6	6	40
2	2	12	5	—	—	2	1	1	26	34	31	15	106
—	—	—	—	—	—	20	26	—	20	26	—	6	52

TABLE V.
VOLUNTARY HOSPITALS.
STATEMENT OF WORK (IN-PATIENT) CARRIED OUT DURING 1931.

Hospital.	Number of Beds.	Admissions.	Discharges.	Deaths.	Average No. of Beds Occupied.	Average Duration of Stay (Days).	Number of Operations.	
							Major.	Minor.
Acton	62	1,286	1,292	79	53	15	417	841
Brentford	27	350	357	23	19.4	19	30	76
Chiswick	43	757	?	20	28	?	90	405
Ealing (King Edward Memorial)	109	1,779	1,781	104	97.2	19.9		1,087
Enfield War Memorial	53	761	723	36	42.5	20.5	272	462
Finchley Memorial	55	879	829	41	42	17.6		
Hampton (St. Mary's)	18	124	105	7	12	21	24	61
Hanwell Cottage	16	203	195	5	12	21.7	104	160
Harlington, Harmondsworth and Cranford Cottage	9	86	86	0	Not stated	Not stated		
Hayes Cottage	15	237	244	9	7.6	11.7	48	145
Harrow and Wealdstone	71	949	886	36	44.3	17	275	439
Hendon (King Edward Memorial Cottage)	50	675	645	26	40	22	199	260
Hornsey Central	48	930	929	34	38	15	493	319
Hounslow	72	932	878	21	57	22	468	1,130
Northwood, Pinner and District	37	436	416	18	23	14.5	141	133
Potters Bar Cottage	12	135	123	8	?	12	27	81
Staines Cottage	28	336*	329*	6*	23.9*	17.1*	141*	176*
Teddington and Kingston Cottage	26	422	—	29	—	—	121	186
Tottenham (Prince of Wales's General)	201	2,845	2,667	204	175.6	24	1,684	2,444
Twickenham (St. John's)	34	413	403	16	16	14	144	284
Uxbridge and Hillingdon Cottage	27	463	428	21	20	15		76
Wembley	25	604	585	12	21.75	13	254	325
Willesden General	106	2,682	2,671	89	94	12.8		
Wood Green (Passmore Edwards)	52	1,003	922	30	41	15	382	540

* Eight months ended Dec., 1931.

TABLE
VOLUNTARY
ST

Hospital.	Medical.						
	Hon. Consultants.					Local Medical Practitioners.	Resident Medical Officers.
	Physicians.	Surgeons.	In charge of Special Depts.	Attend regularly.	Attend only when required.		
Acton	3	5	4	Yes	—	16	2
Brentford	2	4	7	—	Yes	8	—
Chiswick	?	?	?	—	Yes	Yes	—
Ealing (King Edward Memorial)	1	1	9	Yes	—	6	3
Enfield War Memorial	2	1	—	Yes	—	20	—
Finchley Memorial	2	4	6	—	Yes	22	—
Hampton (St. Mary's)	—	—	—	—	—	Yes	—
Hanwell Cottage	1	3	4	—	Yes	11	—
Harlington, Harmondsworth and Cranford Cottage	—	1	—	—	Yes	Yes	—
Hayes Cottage	1	2	3	—	Yes	3	—
Harrow and Wealdstone	3	2	6	Yes	—	Yes	1
Hendon (King Edward Memorial Cottage)	2	1	5	Yes	—	23	—
Hornsey Central	3	3	6	—	Yes	Yes	—
Hounslow	2	4	7	Yes	—	10	2
Northwood, Pinner and District	2	4	5	—	Yes	13	—
Potters Bar Cottage	1	1	3	—	Yes	3	—
Staines Cottage	1	3	—	—	Yes	5	—
Teddington and Kingston Cottage	—	4	1	—	Yes	Yes	—
Tottenham (Prince of Wales's General)	6	5	10	Yes	—	No	6
Twickenham (St. John's)	3	5	4	—	Yes	12	—
Uxbridge and Hillingdon Cottage	1	1	1	—	Yes	6	—
Wembley	2	3	9	—	Yes	20	—
Willesden General	2	3	10	Yes	—	7	3
Wood Green (Passmore Edwards)	1	4	4	—	Yes	20	—

* Combined post with Assistant Matron.

† Combined post with Home Sister.

VI.
HOSPITALS.
AFF.

Nursing.										Technical.			
Matron.	Assistant Matron.	Home Sister.	Sister-Tutor.	Theatre-Sister.	Sisters i/c of Special Depts.	Ward Sisters.	Staff Nurses.	Probationers.	Assistant Nurses.	Masseuses.	Pharmacist.	Radiographer. Laboratory Assistants.	
1	1	1	*	1	2	5	1	17	—	2	1	—	—
1	—	—	—	—	—	1	2	3	2	—	—	—	—
1	—	—	—	—	—	4	1	10	—	—	—	1	—
1	1	—	1	—	—	9	4	36	—	4	2	2	—
1	1	*	1	*	1	4	4	14	—	—	—	—	—
1	1	—	—	*	—	5	—	12	4	1	1	1‡	—
1	—	—	—	—	—	2	—	—	1	1	—	—	—
1	—	—	—	—	—	1	—	1	2	—	—	1	—
1	—	—	—	—	—	—	1	—	—	—	—	—	—
1	—	—	—	—	—	1	—	2	2	—	—	—	—
1	—	—	1	1	—	4	9	13	—	—	—	1	—
1	—	1	—	†	—	3	2	8	—	—	—	—	—
1	—	—	—	1	—	4	1	18§	—	3	1	2	—
1	—	1	†	1	1	4	4	14	—	1	1	—	—
1	—	—	—	—	—	3	2	7	—	—	—	—	—
1	—	—	—	—	—	—	3	—	—	—	—	—	—
1	—	—	—	—	—	2	1	4	2	—	—	—	—
1	—	—	—	—	—	2	1	4	2	—	—	1	—
1	1	1	1	1	3	9	6	74	—	3	2	1	4
1	—	—	—	—	—	—	3	7	1	1	1	1	—
1	—	—	—	—	—	1	4	5	—	—	—	1	—
1	—	—	—	—	—	1	3	7	2	—	—	1	—
1	1	1	*	1	1	6	12	33	—	3	1	1	—
1	—	—	—	—	—	2	4	7	6	—	—	1	—

‡ Also Ward Sister.

§ Affiliated University College Hospital as training school.

Welfare of the Blind.

The arrangements for the administration of the Blind Persons Act, 1920, which were set out in some detail in last year's annual report, were continued during 1932. 720 certificates of blindness were submitted to the County Medical Officer of Health for scrutiny. In 4 instances, as information was incomplete, arrangements were made for the persons concerned to be examined in the Public Health Department. Of the 4 cases, 1 was found to be "too blind to perform work for which eyesight is essential" and 1 to be not blind within the meaning of the Act, whilst 2 cases of special difficulty were referred to hospital.

Of the 720 certificates referred to above, 543 related to persons deemed to be blind and 78 not blind within the meaning of the Blind Persons Act, whilst in 99 instances opinion was withheld pending further investigation.

Register of Blind Persons.—The following returns, extracted from a report from the Middlesex Association for the Blind, give information regarding the number of blind persons ordinarily resident in the County.

	31st March, 1931.	31st March, 1932.	31st March, 1933.
Babies under 5	6	4	4
Children of school age (5-16)	70	65	58
Persons under training	51	49	56
Persons apparently trainable who refuse training ..	7	10	11
Employed—			
Workshops	59	70	72
Home workers	71	73	80
Elsewhere	174	163	161
	304	306	313
Trained unemployed	5	4	4
Unemployable	1,060	1,120	1,159
Totals	1,503	1,558	1,605

It will be noted that the total increase in the number of blind persons on the Register on 31st March, 1933, as compared with the number on 31st March, 1932, was 47, whilst the following table shows the increase or decrease in the number of blind persons at different age groups at the close of the same period.

Under 5.. .. .	None
6-16	minus 7
16-21	plus 6
21-30	minus 6
30-40	minus 7
40-50	plus 22
50-60	plus 10
60-70	plus 7
Over 70	plus 24
Ages unknown.. .. .	minus 2

In its scheme of the administrative arrangements proposed to be made for discharging the functions transferred to the Council under Part I of the Local Government Act, 1929, the County Council made a declaration to the effect that "all domiciliary assistance to blind persons shall be provided exclusively by virtue of the Blind Persons Act, 1920, and not by way of poor relief."

During the year ended 31st March, 1933, County Council grants towards the cost of surgical appliances, dentures, convalescence, &c., amounted to £238 11s. 2d., and 867 blind persons were afforded domiciliary assistance at a cost to the Council of £24,596 4s. 9d.

Maternity and Child Welfare.

ADMINISTRATION OF THE MIDWIVES ACTS, 1902-1926.

The County Council is the local supervising authority under the Midwives Acts for the entire administrative county with the exception of the Borough of Ealing and the Urban Districts of Edmonton, Tottenham and Willesden.

Notification of Intention to Practise.—During 1932, notification of intention to practise midwifery, either temporarily or permanently, in the area for which the County Council is responsible, was received by the County Council from 341 midwives, distributed among the sanitary districts of the County as shown in the following table :—

District.	Total Number of Midwives practising during 1932.	Removed from District during 1932.	Practising Temporarily during 1932.	Number in District end of 1932.
<i>Urban—</i>				
Acton (<i>Borough</i>)	11	—	—	11
Brentford and Chiswick (<i>Borough</i>) ..	7	—	—	7
Enfield	10	—	1	9
Feltham	6	2	—	4
Finchley	6	1	—	5
Friern Barnet	3	—	—	3
Hampton	3	—	—	3
Hampton Wick	1	—	—	1
Harrow	11	1	—	10
Hayes and Harlington	15	—	—	15
Hendon (<i>Borough</i>)	32	4	2	26
Heston and Isleworth (<i>Borough</i>)	24	2	—	22
Hornsey (<i>Borough</i>)	15	—	—	15
Kingsbury	13	—	—	13
Ruislip-Northwood	11	1	2	8
Southall-Norwood	7	1	—	6
Southgate	11	—	1	10
Staines	15	1	2	12
Sunbury	6	—	—	6
Teddington	3	—	—	3
Twickenham (<i>Borough</i>)	12	*2	1	9
Uxbridge	13	1	—	12
Wealdstone	10	2	—	8
Wembley	14	1	—	13
Wood Green	9	1	—	8
Yiewsley and West Drayton	7	—	—	7
<i>Rural—</i>				
Hendon	8	1	2	5
South Mimms	3	2	—	1
<i>Midwives residing outside the County Council's area</i>	55	1	5	49
Totals	341	24	16	301

* One removed from roll.

There has been a very considerable increase in the total number of midwives practising as compared with 1931, and it may be said that the demands for the services of midwives in the County Council's area as a whole are adequately met.

In addition to the 341 midwives who notified their intention to practise, a further 682 women, holding the certificate of the Central Midwives Board, were resident in the area supervised by the County Council under the Midwives Acts. Thirty-one of these were employed in the County Council's hospitals and institutions and, therefore, not subject to supervision under the Midwives Acts; the remainder were women employed as health visitors or in private or hospital nursing or other duties, but not engaged in the practice of midwifery.

Qualifications of Practising Midwives.—The qualifications held by the 341 midwives practising in the County Council's area during 1932 may be summarised as follows :—

In possession of the certificate of the Central Midwives Board	324
In possession of certificate of the London Obstetrical Society	8
In possession of recognised hospital certificates	2
Enrolled by reason of having been in <i>bona fide</i> practice previous to the Midwives Act, 1902, coming into operation	7
	<u>341</u>

The number of *bona fide* midwives practising in the County Council's area now amounts to only 2·05 per cent. of the total.

Women not certified under the Midwives Acts.—In 1932 the County Council instituted proceedings under the Midwives Acts against a woman for attending a woman in childbirth, otherwise than under the direction and personal supervision of a duly qualified medical practitioner. The Bench found the defendant guilty and imposed a fine of £1 and £6 6s. costs.

Number of Births attended by Midwives.—Every midwife, practising in the area for which the County Council is the local supervising authority under the Midwives Acts, is required to furnish a return at the end of the year, showing the extent of her work. Allowance for slight inaccuracies must be made in the figures obtained, owing to the death or removal of midwives, but for purposes of comparison they may be regarded as substantially correct.

These figures indicate that during 1932 a total of 5,799 births, occurring in the County Council's administrative area under the Midwives Acts, were attended by certified midwives. In the same area certified midwives acted as maternity nurses to 2,483 women who were attended at their confinements by doctors. The number of births attended by practising midwives represents 34 per cent. of the total births, and certified midwives were employed as maternity nurses in a further 14 per cent. of cases.

The confinements of 282 women, equivalent to 4·86 per cent. of all births attended by midwives, were conducted by *bona fide* midwives. *Bona fide* midwives also acted as maternity nurses in 62 cases (2·50 per cent. of those in which midwives acted in that capacity).

Details as to the births attended by midwives in each sanitary district are shown in the following table :—

BIRTHS ATTENDED BY MIDWIVES RESIDING IN EACH SANITARY AREA.

District.	Births attended by Midwives residing in each District.	Births at which Midwives acted as Nurses.
<i>Urban—</i>		
Acton (<i>Borough</i>)	192	69
Brentford and Chiswick (<i>Borough</i>)	312	43
Enfield	384	74
Feltham	141	42
Finchley	97	76
Friern Barnet	145	34
Hampton	127	59
Hampton Wick	1	2
Harrow	94	80
Hayes and Harlington	382	140
Hendon (<i>Borough</i>)	496	270
Heston and Isleworth (<i>Borough</i>)	558	200
Hornsey (<i>Borough</i>)	310	193
Kingsbury	70	58
Ruislip-Northwood	88	73
Southall-Norwood	246	75
Southgate	123	48
Staines	209	104
Sunbury	112	52
Teddington	173	40
Twickenham (<i>Borough</i>)	277	57
Uxbridge	217	154
Wealdstone	135	46
Wembley	161	236
Wood Green	222	128
Yiewsley and West Drayton	227	20
<i>Rural—</i>		
Hendon	80	60
South Mimms	17	13
Attended by midwives residing outside the County Council's area	203	37
TOTALS	5,799	2,483

Notifications.—The number of notifications received from midwives, in accordance with the Rules of the Central Midwives Board, together with similar figures for the previous four years, are as follows :—

	1928.	1929.	1930.	1931.	1932.
Notifications of—					
Sending for medical assistance ..	1,862	1,940	1,881	1,271	1,377
Still-birth	145	135	132	90	97
Death of infant	90	95	87	54	55
Death of mother	7	4	5	2	3
Laying out the dead	41	31	37	34	34
Artificial feeding	43	55	52	24	39
Liability to be a source of infection ..	116	91	109	82	76
Totals	2,304	2,351	2,303	1,557	1,681

These notifications may be classified as follows :—

Medical assistance required for conditions arising	1928.	1929.	1930.	1931.	1932.
During pregnancy	244	257	277	166	174
During labour	982	974	991	723	822
During lying-in	159	184	166	103	79
In infant	477	525	447	279	302
Totals	1,862	1,940	1,881	1,271	1,377

Maternal Deaths.—Three notifications were received of the deaths of women while actually under the care of midwives. To these must be added the number of deaths of women, who, while being attended by midwives, became so acutely ill that transfer to a hospital was necessitated, where they subsequently died. Four cases of this nature occurred during the year, making a total of seven deaths among women attended by midwives, or a death-rate of 1·21 per 1,000 births attended. The maternal death-rate for all births in the administrative County during 1932 was 3·85 per 1,000.

Enquiries were made into each case, and from these it was ascertained that the causes of death may be classified as follows :—

Complications of labour or puerperium—

Placenta prævia	1
Obstructed labour	1
Inversion of uterus	1
Shock following hæmorrhage	1

Associated conditions —

Valvular disease of the heart	2
Carcinoma of cervix—Cæsarian section	1
	—
	7
	—

Puerperal Fever and Puerperal Pyrexia.—Under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, notifications were received of six cases of puerperal fever and 23 cases of puerperal pyrexia, occurring amongst women who had been attended in their confinements by certified midwives. These numbers represent 6·82 per cent. and 8·27 per cent. respectively of the total notifications received under the Regulations.

Careful enquiry was made into the actual cause of raised temperature in all cases of this condition occurring in the practices of certified midwives and the information obtained indicates that puerperal sepsis was responsible for the rise of temperature in 12 out of the 29 cases notified under the Regulations. This is equivalent to an incidence-rate of puerperal sepsis among midwives' cases of 2·07 per 1,000 births.

The following table records the yearly number of notifications of puerperal fever, &c., and of deaths from puerperal sepsis, both in the County generally and among midwives' cases for the past ten years :—

PUERPERAL FEVER AND PUERPERAL PYREXIA.

Year.	Total Number of Births Registered in the County.	Total Number of cases notified in the County.		Total Number of deaths from Puerperal Sepsis in the County.	Number of Births attended by midwives.	Cases notified in practices of midwives.		Deaths from Puerperal Sepsis amongst midwives' cases.
		Puerperal Fever.	Puerperal Pyrexia.			Puerperal Fever.	Puerperal Pyrexia.	
1923..	23,172	67	—	36	10,246	16	—	6
1924..	21,993	55*	—	34	10,218	16*	—	5
1925..	21,533	62	—	25	10,164	18	—	5
1926..	21,703	63	74†	30	8,869†	23	17‡	8
1927..	21,123	41	197	24	8,699†	9	46	5
1928..	22,665	63	177	42	8,596†	15	35	6
1929..	23,331	58	188	27	8,655†	14	40	—
1930..	24,840	82*	224*	55	7,727§	16§	41§	6§
1931 {	{ 25,507 (a)	{ 93 (a)	{ 216 (a)	{ 38 (a)	5,837 (b)	15 (b)	24 (b)	3 (b)
1932 {	{ 17,089 (b)	{ 61 (b)	{ 143 (b)	{ 28 (b)				
	{ 25,437 (a)	{ 88 (a)	{ 278 (a)	{ 45 (a)	5,799 (b)	6 (b)	23 (b)	— (b)
	{ 17,171 (b)	{ 55 (b)	{ 200 (b)	{ 32 (b)				

* These figures relate to periods of 53 weeks.

† Middlesex cases only.

‡ From 1st October, 1926.

§ Excluding those occurring during the last quarter of the year 1930 in the Borough of Ealing and the Urban Districts of Edmonton, Tottenham and Willesden.

(a) The County.

(b) Area for which the County Council is the Local Supervising Authority under the Midwives Acts.

Ophthalmia Neonatorum.—Medical assistance was sought by certified midwives on account of inflammation of, or discharge from, infants' eyes in 144 instances; and in 35 cases the medical practitioners called in notified the condition as ophthalmia neonatorum.

In view of the very serious consequences to sight which may follow, if satisfactory treatment is not promptly instituted, all cases of pathological conditions of the eyes occurring in new-born infants are very closely followed up, with a view to ensuring that adequate treatment is obtained and ascertaining whether visual impairment has resulted.

During 1932 injury to vision did not result in any instance.

Disciplinary Action.—The conduct of one midwife was reported to the Central Midwives Board during 1932. The case was heard in July and after due consideration the Board decided to remove the midwife's name from the Roll and to cancel her certificate.

Verbal cautions were administered to certified midwives in ten instances by the Council's inspectors of midwives.

Visits of Inspection.—Visits made by the Council's inspectors of midwives during 1932 may be classified as follows :—

Visits to midwives who had notified their intention to practise	..	..	..	..	755
„ midwives who had not notified	..	..	..	..	8
„ women not certified under the Midwives Act	..	..	..	..	1
„ patients' homes in connection with cases of ophthalmia, &c.	..	..	..	..	81
„ other persons in connection with investigations under the Midwives Acts	..	..	..	..	175
„ premises in connection with the registration of nursing homes	..	..	..	..	221
„ ante-natal clinics and welfare centres	..	..	..	..	28
„ scattered homes	..	..	..	..	28
Total	..	..	..	..	1,297

Post-certificate Instruction of Midwives.—The arrangements made by the County Council, in co-operation with London County Council, for the post-certificate instruction of certified midwives practising in their area, followed similar lines to those adopted in previous years.

Payment of Fees to Medical Practitioners.—Under the Rules of the Central Midwives Board, a midwife is required to send for medical assistance in all cases of illness or abnormality in the course of pregnancy, labour, or lying-in, and the doctor sent for is entitled to payment of a fee by the Local Supervising Authority, in accordance with a scale and subject to certain conditions laid down by the Ministry of Health. The Local Supervising Authority has power to recover from the patient or her husband, the amount so paid, or such proportion of it as the financial circumstances of the case justify.

In the case of inflammation of, or discharge from, infants' eyes, this right of recovery has been waived by the County Council, in accordance with the suggestion of the Ministry of Health, in order that there may be no temptation for midwives to delay calling in a doctor in cases of apparently trivial affection of the eyes.

The following table furnishes details as to the cost to the County Council of this service during the past five years. It should be noted that while the financial particulars refer to the financial years, the numbers of notifications and claims are those received during the corresponding calendar years.

FEES PAID TO MEDICAL PRACTITIONERS UNDER SECTION 14 OF THE MIDWIVES ACT, 1918.

Year.	A. Number of notifications of sending for Medical Aid.	B. Number of Claims for Fees received.	Percentage of B. to A.	C. Total amount due to Doctors in respect of cases attended by them during financial year.			D. Income from Patients in respect of Doctors' fees.		
					£	s. d.		£	s. d.
1928 ...	1,862	849	45.6	1928-29	1,066	15 6	1928-29	360	7 4
1929 ...	1,940	973	50.2	1929-30	1,314	11 6	1929-30	482	6 3
1930 ...	1,881	1,023	54.4	1930-31	1,188	11 6	1930-31	453	1 6
1931 ...	1,271	724	57.0	1931-32	993	0 0	1931-32	435	1 0
1932 ...	1,377	862	62.6	1932-33	1,163	13 0	1932-33	509	9 5

Compensation to Midwives.—Section 2 (i) of the Midwives Act, 1926, states that where a midwife has been suspended from practice in order to prevent the spread of infection she shall, if she is not herself in default, be entitled to recover from the local supervising authority such amount by way of compensation for loss of practice as is reasonable in the circumstances of the case.

During the year, 12 claims for compensation were put forward by midwives who had been suspended from practice, either totally or partially, for varying periods in order to avoid spread of infection. The claims were considered by the Maternity and Child Welfare Committee, and were deemed to be reasonable having regard to the circumstances of the cases. Sums amounting in all to £77 13s. 8d. were paid by way of compensation.

NURSING HOMES.

The County Council is the authority for the administration of the Nursing Homes Registration Act, 1927, for the whole of the County with the exception of the Borough of Ealing and the Urban Districts of Edmonton, Tottenham and Willesden.

At the beginning of the year, 136 nursing homes appeared on the County Council's register. During 1932, applications for registration were received in respect of a further 32 homes. All of these have been inspected by Dr. Perkins, Assistant County Medical Officer, accompanied by one of the Council's inspectors of midwives. In addition premises were inspected in connection with two further applications which had been received at the close of the previous year.

The table on page 47 gives particulars of the action taken by the Council in regard to these applications, homes removed from the register, and the number of homes appearing on the register at the beginning and end of the year respectively.

The following table shows the number of registered nursing homes in each sanitary district for which the County Council is the authority for the administration of the Nursing Homes Registration Act. The figures in brackets indicate the number of homes devoted either wholly or partly to the reception of maternity cases.

District.	Number of Nursing Homes on Register at end of 1932.	Approved accommoda- tion (beds) at end of 1932.
<i>Urban—</i>		
Acton (<i>Borough</i>)	4 (4)	13
Brentford and Chiswick (<i>Borough</i>).. ..	8 (6)	39
Enfield	4 (3)	18
Feltham	1 (—)	6
Finchley	11 (6)	57
Friern Barnet	1 (1)	1
Hampton	2 (2)	11
Hampton Wick	— (—)	—
Harrow	6 (5)	46
Hayes and Harlington	2 (2)	7
Hendon (<i>Borough</i>)	17 (14)	103
Heston and Isleworth (<i>Borough</i>)	8 (5)	35
Hornsey (<i>Borough</i>)	27 (17)	217
Kingsbury	1 (1)	1
Ruislip-Northwood	4 (3)	13
Southall-Norwood	1 (1)	6
Southgate	7 (6)	47
Staines	2 (1)	23
Sunbury	3 (—)	30
Teddington	6 (3)	41
Twickenham (<i>Borough</i>)	7 (6)	58
Uxbridge	3 (2)	33
Wealdstone	1 (1)	7
Wembley	6 (6)	30
Wood Green	2 (2)	12
Yiewsley and West Drayton	— (—)	—
<i>Rural—</i>		
Hendon	10 (6)	62
South Mimms	1 (1)	1
Totals	145 (104)	917

NURSING HOMES.

Year.	On Register at beginning of year.		Applica- tions received.	Applica- tions voluntarily withdrawn.	Registra- tions refused.	Registra- tions granted.	Applica- tions held over or postponed.	Removed from Register on account of death or removal, or voluntarily.	Registra- tion cancelled.	On Register at close of year.	
	Number of Homes.	Approved accommo- dation (beds).								Number.	Accommo- dation (beds).
1928* ..	124†	388	56	1	1	49	6	18	2	153	863
1929 ..	153	863	41	5	1	27	14	21	—	159	911
1930 ..	159	911	33	5	4	31	7	58‡	—	132	802
1931 ..	132	802	23	5	4	19	2	15	—	136	863
1932 ..	136	863	32	4	—	28	2	19	—	145	917

* The Nursing Homes Registration Act, 1927, came into force on 1st July, 1928.

† On Register on 1st July, 1928, having previously been registered as lying-in homes under the Middlesex County Council (General Powers) Act, 1921.

‡ Including 38 homes transferred to Ealing Borough Council and the Urban District Councils of Edmonton, Tottenham and Willesden.

MATERNITY AND CHILD WELFARE SCHEME.

The County Council is the authority for maternity and child welfare in 12 of the 32 sanitary districts included in the administrative County, namely the Urban Districts of Feltham, Friern Barnet, Hampton Wick, Hayes and Harlington, Kingsbury, Ruislip-Northwood, Staines, Sunbury, Uxbridge and Yiewsley and West Drayton and the Rural Districts of Hendon and South Mimms. In all these districts the County Council is also the authority for elementary education.

Reference has been made in previous reports to steadily increasing demands upon the time of the County Council's medical staff which have resulted from the rapid growth in the numbers of mothers and children attending the various welfare centres. The situation to some extent was ameliorated by the appointment during 1932 of an additional Assistant Medical Officer, Dr. Katharine M. Cellan-Jones, and two additional health visitors and school nurses.

The table which appears below gives the figures relating to attendances at welfare centres for the past five years, and it will be observed there has been no diminution in the rate of growth during 1932.

ATTENDANCES AT WELFARE CENTRES—HOME VISITS BY HEALTH VISITORS.

—	1928.	1929.	1930.	1931.	1932.
<i>Welfare Centres—</i>					
Number of sessions held	1,549	1,634	2,207	2,321	2,218
<i>New cases attending—</i>					
Expectant mothers	388	614	670	865	530
Infants under 1 year of age	1,542	1,976	2,557	2,893	3,142
Children (1 to 5 years)	694	945	1,288	1,225	1,190
<i>Total attendances made—</i>					
Expectant mothers	1,876	2,190	2,862	3,240	2,073
Mothers attending with infants and children	41,186	46,317	60,005	69,750	80,550
Infants	27,104	31,661	41,223	47,516	53,796
Children (1 to 5 years)	28,369	28,974	35,233	39,669	46,154
Total attendances	98,535	109,142	146,045	160,175	182,573
Average attendance of infants and children each session	35·81	37·11	36·38	39·85	45·06
<i>Home visits made by Health Visitors—</i>					
Ante-natal visits	2,415	2,559	2,714	2,617	2,845
Visits to infants under 1 year	16,779	18,432	18,742	20,914	21,684
Visits to children (1 to 5 years)	21,184	19,921	20,508	24,870	27,830
Total home visits	40,378	40,912	41,964	48,401	52,359
Total number of visits to individual families	27,972	30,543	32,074	36,597	39,507

151 sessions were held at the ante-natal clinics, 621 new cases were seen, the total attendances made being 1,389.

The tables on the following pages give particulars regarding the situation and times of sessions of the Council's ante-natal clinics and welfare centres, with the name of the medical officer in charge of each.

COUNTY COUNCIL ANTE-NATAL CLINICS.

District.	Address of Centre.	Day and Time of Ante-Natal Session.	Medical Officer in Charge.	First Session held.
<i>Urban—</i>				
Feltham	The Hut, Council School	Last Monday in each month, 9.30 a.m....	Dr. Wilson ..	30th September, 1929.
Friern Barnet ..	Whetstone, Congregational Church Hall, Oakleigh Road	Last Friday in each month, 2.30 p.m.	Dr. Campbell ..	27th September, 1929.
Hayes and Harlington	Hayes, Townfield Road Council School ..	Last Monday in each month, 9.30 a.m., and the Wednesday following the last Monday in each month, 9.30 a.m.	Dr. Shelley ..	30th September, 1929.
	Harlington, Village Hall, Cherry Lane..	Last Monday in each month, 9.30 a.m....	Dr. Cellan-Jones	24th November, 1930.
Kingsbury ..	Church Hall, Bacon Lane	Last Wednesday in each month, 9.30 a.m. ..	Dr. Moir ..	1st June, 1932.
Staines ..	Ashford, Wesleyan Church School Room, Clarendon Road	Last Wednesday in each month, 9.30 a.m.	Dr. Wilson ..	25th September, 1929.
	Staines, The Hut, Kingston Road Council School	Last Thursday in each month, 9.30 a.m.	Dr. Cellan-Jones	26th September, 1929.
Sunbury ..	Congregational Church Hall, Rooksmead Road	Last Thursday in each month, 9.30 a.m.	Dr. Heddy ..	26th September, 1929.
Uxbridge ..	109, High Street	*Second and fourth Wednesdays in each month, 9.30 a.m.	Dr. Glyn-Jones..	Transferred from Uxbridge Urban District Council on 1st April, 1928.
Yiewsley and West Drayton	Yiewsley, Central Hall, Fairfield Road ..	Last Tuesday in each month, 9.30 a.m.	Dr. Ruddy ..	24th September, 1929.
	Harmondsworth, The Old School, Moor Lane	Last Monday in each month, 4.0 p.m.	Dr. Cellan-Jones	28th November, 1932.
<i>Rural—</i>				
Hendon ..	Headstone, St. George's Church Hall ..	Last Tuesday in each month, 9.30 a.m.	Dr. Burn ..	31st December, 1929.

* 2 Sessions per month held from October, 1931.

COUNTY COUNCIL WELFARE CENTRES.

District.	Address of Welfare Centre.	Day of Meeting (2.30 p.m.).	Medical Officer in Charge.
<i>Urban—</i>			
Feltham	Feltham, The Hut, Council School ..	Tuesday ..	Dr. Wilson.
	Bedfont—Public Hall, New Road ..	Monday ..	Dr. Wilson.
	Hanworth—Village Hall	Friday ..	Dr. Wilson.
Friern Barnet ..	Congregational Church Hall, Bellevue Road.	Wednesday ..	Dr. Poole.
	Freehold Social Institute, Hampden Road.	Friday ..	Dr. Poole.
	Whetstone—Congregational Church Hall, Oakleigh Road.	Tuesday ..	Dr. Campbell.
Hampton Wick ..	Baptist Mission, Upper Teddington Road.	Friday ..	Dr. Heddy.
Hayes and Harlington	Hayes—Queen's Hall, Station Road	{ Monday Thursday Friday }	Dr. Shelley.
	Hayes—Townfield Road Council School	{ Tuesday Wednesday }	Dr. Shelley.
	Harlington — Village Hall, Cherry Lane.	Tuesday ..	Dr. Cellan-Jones
Kingsbury	Church Hall, Bacon Lane	{ Monday Wednesday }	Dr. Moir.
Ruislip-Northwood ..	Eastcote—Church Hall	Wednesday ..	Dr. Hignett.
	Northwood — Methodist Assembly Room, Hallowell Road.	Tuesday ..	Dr. Hignett.
	Ruislip—Church Room	Thursday ..	Dr. Hignett.
	South Ruislip, Legion Hall, West End Road.	Monday ..	Dr. Glyn-Jones.
Staines	Staines—The Hut, Kingston Road Council School.	Wednesday ..	Dr. Cellan-Jones.
	Ashford — Wesleyan Church School Room, Clarendon Road.	Thursday ..	Dr. Wilson.
	Stanwell—Women's Institute Hall ..	Monday ..	Dr. Cellan-Jones.
Sunbury	Sunbury — Congregational Church Hall, Rooksmead Road.	Wednesday ..	Dr. Heddy.
	Ashford Common — The Pavilion, Spelthorne Sports Club.	Wednesday ..	Dr. Wilson.
	Upper Halliford, Church Hall ..	Thursday ..	Dr. Heddy.
	Shepperton—Council School ..	Monday ..	Dr. Heddy.
Uxbridge	Colham Green—Mission Room ..	Wednesday ..	Dr. Glyn-Jones.
	Harefield—Memorial Hall	Thursday ..	Dr. Norrington.
	Hayes End — Salem School, High Road.	Friday ..	Dr. Moir.
	Hillingdon West, St. Andrew's Hall ..	Thursday ..	Dr. Glyn-Jones.
	Ickenham—Village Hall	Tuesday ..	Dr. Norrington.
	Uxbridge—109, High Street	{ Tuesday Friday }	Dr. Glyn-Jones.
Yiewsley and West Drayton	Yiewsley—Central Hall, Fairfield Road	{ Tuesday Friday }	Dr. Ruddy.
	Harmondsworth—Old School, Moor Lane.	Thursday ..	Dr. Cellan-Jones.
<i>Rural—</i>			
Hendon	*Harrow Weald—Memorial Hall ..	{ Monday Thursday }	Dr. Burn.
	Headstone—St. George's Church Hall	{ Tuesday Wednesday }	Dr. Burn.
	Pinner—Free Church Lecture Hall, Payne's Lane.	Friday	Dr. Norrington.
	Stanmore—Whitchurch Institute, Whitchurch Lane.	Friday	Dr. Burn.
South Mimms ..	Potters Bar—Village Hall	Wednesday ..	Dr. Campbell.
	South Mimms — St. Giles's Parish Room.	Thursday ..	Dr. Campbell.

* 2 sessions per week held from 5th September, 1932.

The following table gives information as to the cost of fresh and dried milk, &c., issued at the centres during the *financial* year ended 31st March, 1933.

1932-33.						Cost Price.	Contributed by Mothers.	Charge on Scheme.
						£ s. d.	£ s. d.	£ s. d.
Fresh milk	..	..	..	..	..	2,671 7 11	—	2,671 7 11
Dried milk	..	..	..	..	..	2,436 4 7	1,805 10 3	630 14 4
Virol, cod-liver oil, malt, &c...	..	..	..	..	..	739 16 0	657 15 1	82 0 11
Totals	..	..	..	..	..	5,847 8 6	2,463 5 4	3,384 3 2

The net cost to the County Council shows an increase of £1,275 11s. 5d. on the net cost for the financial year 1931-32. This is doubtless associated with the continued general economic depression.

Ophthalmic Treatment.—Two part-time oculists have been appointed by the Education Committee under the County Council's scheme for the treatment of school children and their services also are available for the treatment of certain cases referred from the welfare centres. If the parents' circumstances permit, they are required to pay the cost price of any spectacles supplied, together with a charge of 1s. for examination and fitting.

Dental Treatment.—At the dental clinics established for school children by the Middlesex Education Committee, treatment is provided for expectant and nursing mothers, or children below school age, who are referred on account of oral sepsis or dental caries.

During the financial year, 1932-33, the sum contributed towards the cost of dental treatment, including the supply of dentures, was £246 15s. 2d., while the actual cost of the dentures only was £191 6s. 8d.

The following table gives particulars of the dental work which has been carried out during the year under the Council's Maternity and Child Welfare scheme :—

	Mothers.	Children under 5 years of age.
Number inspected	480	349
„ of attendances made	1,929	617
„ treated	257	332
„ extractions (gas)	1,507	420
„ „ (local anæsthetic)	1,057	290
„ other treatment (fillings, &c.)	1,314	968
„ dentures completed	262	—

The figures given do not show any appreciable increase in the amount of treatment received by expectant or nursing mothers, but those for children under five years of age again show a substantial rise.

There is also in operation an agreement between the County Council and the local authorities concerned, whereby the dental treatment of expectant and nursing mothers and of children below school age attending welfare centres in Southall-Norwood and Southgate, and of children only in Teddington, is undertaken at the County Council's dental clinics.

Treatment of Ophthalmia Neonatorum.—Arrangements are in force whereby infants suffering from ophthalmia neonatorum may be admitted to St. Margaret's Hospital, Kentish Town, one of the hospitals included in the Special Hospitals Service of the London County Council. During 1932-23 cases of ophthalmia neonatorum were notified in the area of the County for which the County Council is the authority for maternity and child welfare. Of these, 14 related to infants born in the maternity hospital belonging to the Willesden Urban District Council, which is situated in Kingsbury. The table on the next page affords information as to the remaining 9 cases.

OPHTHALMIA NEONATORUM.

Maternity and Child Welfare Area.

Cases.			Vision unimpaired.	Vision impaired.	Total Blindness.	Deaths.
Notified.	Treated.					
	At home.	In hospital.				
1932.						
11th April ..	1	—	1	—	—	—
4th May ..	1	—	1	—	—	—
11th May ..	1	—	1	—	—	—
5th July ..	—	1	1	—	—	—
20th July ..	1	—	1	—	—	—
20th August ..	—	1	1	—	—	—
31st August ..	—	1	—	—	—	1
19th September	1	—	1	—	—	—
14th December	1	—	1	—	—	—
Total ..	6	3	8	—	—	1

Treatment of Puerperal Fever and Puerperal Pyrexia.—On seven occasions during the year the advice of Mr. J. M. Wyatt, F.R.C.S., the County Council’s consultant, was sought, and in two instances he visited patients in consultation with their own doctor. Nine women were admitted, under the arrangement with the London County Council, to wards reserved for the treatment of puerperal infection, under the care of Mr. Wyatt. In one instance a woman was admitted at the expense of the County Council to the Isolation Block of Queen Charlotte’s Hospital, owing to there being no vacancies in Mr. Wyatt’s wards. All the patients recovered.

Provision of Midwives.—The County Council employs two whole-time midwives, who practise in Harefield, Ruislip-Northwood and Yiewsley and West Drayton.

For some years past the County Council has subsidised, by a grant of £25 to each, the district nursing associations in Stanwell and Kingsbury. In 1931 the South Mimms, Potters Bar and Bentley Heath Nursing Association was formed and received a grant of £50 and a similar amount was paid during 1932. The Staines and Laleham Nurse Society received a grant of £25 during the year under review, consequent upon a fully-trained nurse and midwife being appointed to undertake midwifery services in the parish of Laleham.

Central Consultative Ante-natal Clinic.—Monthly sessions of this clinic, which is under the direction of Dr. J. S. Fairbairn, F.R.C.P., were held in the Public Health Department, 10, Great George Street, Westminster, throughout the year. Forty new cases were referred to the clinic for examination, and in all sixty-three attendances were made.

Seven women were referred to St. Thomas’s Hospital for x-ray examination, either of the nature of the pregnancy or of the presentation of the foetus. Five women were admitted to the hospital for further investigation and treatment of pathological ante-natal conditions. Two of these were subsequently admitted to the maternity wards of the hospital and each was safely delivered of a living child. Two other women were admitted for a short period only in order that version of a mal-presentation of the foetus might be carried out under anæsthesia.

Investigation of maternal deaths.—During the course of the year Mr. J. M. Wyatt, F.R.C.S., carried out investigations into the deaths of five women who died in childbirth in the districts in Middlesex in which the County Council has agreed to undertake this enquiry. In each instance a detailed report was forwarded to the Ministry of Health for consideration by the Maternal Mortality Committee appointed by the Minister in 1928.

CHILDREN ACT, 1908 (PART I).

Since April 1st, 1930, the County Council has been responsible for the administration in its maternity and child welfare area of Part I of the Children Act, 1908, which deals with infant life protection. The County Council's health visitors have been appointed infant protection visitors, and by home visitation exercise supervision over children below the age of seven years who are in the care of foster-parents.

At the commencement of 1932 the County Council's register contained the names of 156 foster-parents, having in their care 204 children. During the year 86 additional foster-parents notified their intention of undertaking for reward the nursing and maintenance of infants, while 101 foster-parents notified that they had ceased to have infants in their care. Notifications of the reception of 169 infants and of the removal of 200 infants from the care of foster-parents were received, and 1 infant died. Of the 200 children removed, 12 had attained the age of seven years, whilst 188 were returned to the care of their parents or other persons. An order for the removal of an infant to a place of safety (*i.e.*, a Poor Law institution) was made by the County Council, but, before the order was executed, the child's parent took the infant into her own care. Legal action was taken by the County Council in respect of the failure of a foster-parent to notify her change of address within the prescribed period, the defendant being bound over on her definitely undertaking in future to notify the County Council of any change of residence.

The Council's health visitors, in their capacity of infant protection visitors, paid 73 first visits and 916 subsequent visits to foster-parents during 1932.

The close of the year marked the termination of supervision of foster-children under the provisions of the Children Act, 1908, since on January 1st, 1933, the Children and Young Persons Act, 1932, came into force. This Act amends, in several particulars, the previous Act. Perhaps the most important alterations are :—

- (1) Written notice to be given to the local authority not less than seven days before reception in the case of the first infant, and not less than 48 hours in the case of subsequent infants.
- (2) The extension to the age of nine years of the period during which young children are subject to the provisions of Part V of the Act.
- (3) The cancellation of the power of the County Council as local authority under the Act to issue orders for the removal of infants to a place of safety, with the transference of this function to local courts of summary jurisdiction.

Inspection and Supervision of Food.

The acts and regulations dealing with the supervision of food supplies which are administered by the County Council deal with (a) certain powers and duties connected with the production of milk and (b) adulteration of food.

MILK PRODUCTION.

(1) *The Milk and Dairies (Consolidation) Act, 1915.* During the year, 288 samples of milk, collected from Middlesex producers or retailers, were examined for the presence of tubercle bacilli by animal inoculation at the Lister Institute of Preventive Medicine. In 22 instances it was not possible to arrive at a definite result owing to the death from intercurrent infection of the guinea-pigs inoculated. Of the remaining 266 samples living tubercle bacilli were found in 31. Thus in 266 unselected milk samples purchased in Middlesex, tubercle bacilli were found to be present in no less than 11·6 per cent. This represents the highest proportion of tubercle-infected milk which has been discovered in the County since routine sampling and examination for tubercle bacilli at the Lister Institute was introduced in 1927. The following table shows the results obtained year by year since that time :—

Year.	Number of samples for which a definite result was obtained.	Number containing living tubercle bacilli.	Percentage of tubercle-infected milk.
1927	272	28	10·3
1928	228	23	10·1
1929	277	21	7·6
1930	272	22	8·1
1931	256	14	5·5
1932	266	31	11·6

Of the 31 infected milks found in 1932, 9 were stated to have been produced in Middlesex and 22 in other counties. Diseased animals were traced out on 9 of the farms concerned, and 14 cows were slaughtered by the County Councils concerned under the powers conferred by the Tuberculosis Order, 1925. In the case of the remaining 22 farms no evidence of bovine tuberculosis could be detected on veterinary examination of the herds, but in six instances evidence was forthcoming that cows in poor condition who might have yielded the infected samples had been sold for slaughter between the date of taking the samples and the date, some weeks later, when the results of the biological tests were to hand.

In Willesden the District Council for some years past have carried out routine examination for tubercle bacilli of milk retailed within the district. The Medical Officer of Health of Willesden informs me that during the year 50 samples of milk, taken from Willesden retailers, were examined for the presence of tubercle bacilli by animal inoculation. Four of the samples, all of which had been produced outside Middlesex, were found to contain living tubercle bacilli. In three instances it was found possible to trace the infected cows, and these were dealt with under the Tuberculosis Order.

(2) *The Milk and Dairies Order, 1926.*—For the past four years routine veterinary inspection of dairy cattle has been carried out in Middlesex by a whole-time veterinary inspector, Mr. Sidney Villar, F.R.C.V.S.

So far as is possible, every farm in the County is visited once a quarter, and in addition to these regular routine inspections a large number of special visits are paid in order to keep under observation any unsatisfactory conditions noted at previous routine inspections. Mr. Villar’s report for 1932 is as follows :—

“ During the year 776 routine visits to registered cowkeepers’ premises were made and in addition a large number of special or repeat visits for carrying out the duties under the above Act and Order.

During this period approximately 20,000 examinations of individual cows, the property of 197 cowkeepers or cow-keeping firms, were carried out.

Apart from, and in addition to, the animals which had been suspected of tuberculosis by their owners and reported to the local veterinary inspectors and dealt with by those officials, 59 milking cows were found during the routine inspections to be affected with tuberculosis. Of these 59 diseased cows, 28 were affected with tuberculosis of their udders and yielding tubercle bacilli in their milk.

The tubercle bacilli were found in each case after clinical examination of the udders by microscopical examination of the milk ; in no case was the discovery made by inoculation of guinea-pigs or other experimental animals, and the tuberculin test was made use of on only two cows during the year.

The number of cows discovered yielding tubercle germs in their milk (28) is a serious increase on the number found in the three previous years in which routine veterinary inspections have

been carried out. This increase is undoubtedly due to the very low prices which have prevailed during the year in the wholesale beef trade.

It is the custom of dairy farmers in this county to fatten and sell their cows to the butcher, allowing them to go barren after about their sixth calving or even earlier if they have shown any weakness of the udder, but during the past year the prices fat cows have realised have been so low that owners have been unable to sell them except at a great loss and have, therefore, again bred from and used such cows as milkers, so that the percentage of aged cows has increased on many farms. Although tuberculosis in cows occurs at any age, it is much more prevalent in cows of nine or ten years old and upwards than in younger animals.

It is noteworthy that, except in the advanced stages of tuberculous udders, the milk yielded is not usually altered in its quantity or in its appearance. A record was kept of the 28 samples in which tubercle bacilli were found and in only three of them was the appearance of the milk sufficiently altered for the milkman to recognise that it was unfit for human consumption.

Although an animal with tuberculosis of the udder never recovers, the disease may progress very slowly and the cow will be yielding infected milk for weeks or months before her condition becomes sufficiently bad for the owner or milkman to notice it, and during this long period her milk is disposed of for human consumption. It is in these early stages of tubercle infecting milk that routine veterinary inspection is so valuable and there appears to be no other practicable way in which to stop its sale.

In addition to the cows dealt with under the Tuberculosis Order, notices were served on the owners prohibiting the sale of milk of 150 cows which were affected with other diseased conditions of the udder and four further cows suffering from septic illness following the birth of calves.

Twenty-five cows had suppuration (abscess) of the udder, 23 had acute inflammation of the udder, 35 were affected with the condition known as 'summer mastitis' and 67 had sub-acute inflammation of the udder. In these serious conditions, notices totally prohibiting the sale of the affected animals' milk were served on the owners. In other cases where the defect of the udder was localised or of a temporary nature, the owners were warned either personally or by letter not to sell the milk and a large number of cautionary letters or notices were so written.

During the summer months a serious disease known as summer mastitis was unusually prevalent. In addition to the udder trouble, cows show marked febrile disturbance, animals which are not in milk but which are approaching parturition are mostly attacked and it is supposed that the disease germ (*B. pyogenes*) is carried from cow to cow by flies. Cows on sixteen farms in the Enfield and Mill Hill districts were affected; cases also occurred in other parts of the County. Several of the affected animals died and very few of them quite recovered.

Another form of contagious udder disease—'streptococcic mastitis'—prevailed on five farms during the year. As in the cases of summer mastitis frequent visits were made, the affected animals kept under personal observation and precautions insisted upon to prevent the spread of the disease to other cows and to ensure that the milk of infected animals was not sold for human consumption.

Eruptive disease of the udder and teats known as 'cow-pox' was not so prevalent as in former years. Although animals were found affected on five farms, in only one outbreak was there a serious spread of the disease. This is probably due to the efforts which have been made in previous years to impress on owners the contagious nature of the disease and the necessity of isolating and disinfecting affected animals.

Contagious abortion has been very prevalent in one large herd. It is of importance as being the possible source of undulant fever in man, also in causing very serious financial loss to the farmer. Suggestions were made for the control of the disease and for the disinfection of affected cows.

Nineteen animals were seen to be suffering from John's disease. Slaughter of these animals was advised and it is believed that in each case this was carried out.

Four cows affected with actinomycosis of the tongue were seen. They were all under veterinary treatment and three of them recovered."

From the above report it will be seen that as a result of Mr. Villar's work 59 cases of bovine tuberculosis were detected and reported for action under the Tuberculosis Order. In one instance the extent of the tuberculous lesions found was not, in the opinion of the local veterinary inspector, such as to bring the affected animal within the terms of the Order. The remaining 58 animals were deemed to be suffering from tuberculosis as defined by the Order, and were slaughtered under the instructions of the County Council.

In addition to removing these sources of tuberculous milk from Middlesex herds, Mr. Villar, during the year, took action to prevent the sale of milk for varying periods from 154 cows suffering from other diseases of the udder.

It is not inappropriate that reference should be made to the fact that Mr. Villar decided to relinquish his appointment in view of his advancing years, and ceased duty at the end of 1932. It is largely due to his energy and enthusiasm, combined with sound knowledge and experience, that the inauguration of a system of veterinary inspection in the County has proved so valuable an extension of the Council's public health functions. The details of the work carried out contained in my annual reports of the past four years are evidence of the benefit attending this branch of work, but to the

personality and tact of Mr. Villar is attributable the fact that the Council's scheme of inspection, far from antagonising the milk producers in the area, has been welcomed by them as a valuable aid, and has been met with sympathy and co-operation.

(3) *The Milk (Special Designations) Order, 1923.*—Licences for the production of "Certified" milk were granted by the Ministry of Health to five Middlesex milk producers during the year; the licensed farms being situated in the Urban Districts of Enfield, Finchley, Ruislip-Northwood and Wembley and the Rural District of Hendon. A licence to produce and bottle "Grade A Tuberculin tested" milk was granted by the Ministry to a producer whose farm is situated in Hendon Rural District.

Three dairymen were granted licences by the County Council to produce "Grade A" milk; the farms concerned are situated in Ruislip-Northwood and Hendon Rural District (2).

(4) *The Tuberculosis Order, 1925.*—This Order of the Ministry of Agriculture is administered by the Diseases of Animals Sub-Committee of the County Council. The Clerk of the County Council informs me that during 1932, visits were made by the Council's part-time veterinary surgeons to 107 premises on which bovine tuberculosis had been reported or was suspected (in 55 instances as result of routine inspection by the County Council's whole-time officer, Mr. Villar). Veterinary examination of 1,013 animals was carried out and 106 animals (including 58 reported by Mr. Villar) were found to be suffering from tuberculosis as defined by the Order and were slaughtered. A sum of £844 12s. 6d. was paid by the County Council by way of compensation to the owners of the cows slaughtered (75 per cent. of this amount is repayable by the Ministry of Agriculture).

ADULTERATION.

The acts and regulations dealing with adulteration of food are administered by the Public Control Department of the County Council. I am indebted to Mr. R. A. Robinson, Barrister-at-Law, Chief Officer of the Public Control Department, for the information regarding this branch of work.

Food and Drugs (Adulteration) Act, 1928.—In the following table are set out particulars of samples submitted to the County Analyst by officers of the Public Control Department during 1932 :—

	Number of Samples Examined.	Number of Samples Adulterated or not up to Standard.
Apples	4	—
Arrowroot	1	—
*Black Currant Jam	1	—
*Black Currant Pulp	1	—
Brandy	3	2
Brandy Wine	1	—
*Butter	17	—
Calcium Lactate Mixture	6	3
Calcium Lactate Tablets	4	—
Calomel Tablets	2	—
*Cream	8	—
*Dripping	1	—
*Eggs	1	—
Gin	4	—
*Lard	1	—
*Meat	3	—
*Milk	1,216	82
*Milk, separated	1	—
*Milk, sterilised	6	—
*Minced Beef	2	—
Mustard	1	—
*Pastry	3	—
*Peas	1	—
Pepper	1	—
Perchloride of Iron Gargle	8	2
Plums	1	—
*Potatoes	1	—
Rum	2	—
*Sausages	4	2
Sugar	3	—
*Sweets	2	—
Syrup of Ferrous Iodide	10	6
Tincture of Iodine	6	—
Vinegar	1	—
Wine and Whisky	1	—
Totals	1,328	97

* See following page.

In addition to the above, over 3,000 samples were examined during the year by officers of the Public Control Department.

Public Health (Preservatives, &c., in Food) Regulations, 1925 and 1927.—In the foregoing table, articles marked * were also examined for the presence of preservatives.

Public Health (Dried Milk) Regulations, 1923 and 1927.

Public Health (Condensed Milk) Regulations, 1923 and 1927.

No action was taken under these Regulations during the year.

Infectious Diseases.

NOTIFIABLE DISEASES OTHER THAN TUBERCULOSIS.

SMALLPOX.—Smallpox continued to diminish in incidence during 1932 throughout the country. Up to 1927 the disease had been confined almost entirely to industrial areas in the north, midlands and South Wales, whilst, except for an occasional sporadic case, the metropolitan area had escaped. During the last two or three years, however, the position has become reversed, and the majority of cases have occurred in London and the surrounding counties. The following table illustrates this and shows that nearly 75 per cent. of the smallpox cases which occurred during 1932 were concentrated in London and its environs.

Year.						In England and Wales.	In London and neighbourhood.*
						Cases.	Cases.
1922	..	..	..	..	..	973	78
1923	..	..	..	..	..	2,485	21
1924	..	..	..	..	..	3,765	32
1925	..	..	..	..	..	5,365	19
1926	..	..	..	..	..	10,146	9
1927	..	..	..	..	..	14,767	29
1928	..	..	..	..	..	12,420	517
1929	..	..	..	..	..	10,967	3,475
1930	..	..	..	..	..	11,491	6,954
1931	..	..	..	..	..	5,665	2,552
1932	..	..	..	..	..	2,070	1,480

* Including the Counties of Middlesex, Surrey, Essex, Kent, Berkshire, Buckinghamshire and the associated County Boroughs.

So far as the County of Middlesex is concerned, 25 cases of smallpox occurred during 1932, as compared with 14 cases in 1931, 271 cases in 1930 and 80 cases in 1929. All were of the mild variety, known as variola minor, and no deaths occurred. The cases were distributed throughout the county as follows:—Acton, 1; Edmonton, 2; Enfield, 2; Hendon (Borough), 8; Hornsey, 5; Tottenham, 5; Uxbridge, 1; and Wood Green, 1.

With regard to the vaccinal condition of the 25 Middlesex residents who contracted the disease, 19 were unvaccinated or had been vaccinated for the first time after exposure to infection and too late to afford protection. Five persons had been vaccinated in infancy, and of these four were over 40 years of age. In one instance no information as to vaccination was available.

SCARLET FEVER.—The number of cases of scarlet fever notified in Middlesex during 1932 was 4,793, equivalent to a case-rate of 2·82 per 1,000 persons living. The corresponding rate for the previous year was 2·71. There were 29 fatal cases, corresponding to a case-mortality rate of 0·61 per cent., which is about the average rate which has been experienced in this county during the years of the present century. The death-rate from scarlet fever in Middlesex in 1932 was 0·02 per 1,000 persons living. A similar rate was recorded in London, whilst that in England and Wales and the Great Towns was 0·01 per 1,000.

DIPHThERIA.—The incidence of diphtheria was particularly low; lower, in fact, than has ever previously been recorded in Middlesex, the incidence rate falling to 0·86 per 1,000 persons living. This is the first time on record that the rate has been below 1 per 1,000 of the population. During the year, 1,462 cases were notified. Eighty-seven persons died from the disease, of whom eighty were children below the age of 15. This corresponds to a case-mortality rate of 5·95 per cent. or, stated another way, a fatal issue in one case out of every 17. The death-rate from diphtheria for Middlesex was 0·05 per 1,000 persons living; the corresponding rates for the whole country was 0·06 per 1,000, and for London and for the Great Towns 0·07 per 1,000.

Diphtheria is a preventable disease. Even when not prevented there exists in anti-toxin a specific remedy which, when administered sufficiently early, is able to bring about recovery in almost a hundred per cent. of cases. In view of these facts, the above figures although more favourable than those of previous years, cannot be considered as entirely satisfactory.

ENTERIC FEVER.—During the year 80 cases of typhoid and paratyphoid fever were notified, with ten deaths. These figures correspond to a case rate of 0·05, a death-rate of 0·006 per 1,000 persons living and a case-mortality rate of 12·5 per cent.

The following table gives statistical information regarding scarlet fever, diphtheria and enteric fever in each district of the county.

COUNTY AND DISTRICT RATES, 1932.

Scarlet Fever, Diphtheria, Enteric Fever.

District.	Number of cases notified, with case-rate per 1,000 living. Number of deaths recorded, with death-rate per 1,000 living.											
	Scarlet Fever.				Diphtheria.				Enteric Fever.			
	Cases Notified.		Deaths Recorded.		Cases Notified.		Deaths Recorded.		Cases Notified.		Deaths Recorded.	
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
<i>Urban—</i>												
Acton (<i>Borough</i>)	536	7.59	7	0.10	152	2.15	20	0.28	3	0.04	—	—
Brentford and Chiswick (<i>Borough</i>)	321	5.10	—	—	45	0.71	—	—	4	0.06	—	—
Ealing (<i>Borough</i>)	405	3.30	1	0.01	55	0.45	2	0.02	3	0.02	1	0.01
Edmonton ..	342	4.17	7	0.09	90	1.10	5	0.06	—	—	—	—
Enfield ..	228	3.26	2	0.03	96	1.37	1	0.01	—	—	—	—
Feltham ..	45	2.65	—	—	8	0.47	—	—	—	—	—	—
Finchley..	155	2.57	1	0.02	46	0.76	5	0.08	2	0.03	—	—
Friern Barnet ..	53	2.25	—	—	18	0.76	1	0.04	9	0.38	1	0.04
Hampton ..	73	5.60	—	—	8	0.61	—	—	—	—	—	—
Hampton Wick..	4	1.36	—	—	—	—	—	—	—	—	—	—
Harrow ..	38	1.29	—	—	8	0.27	—	—	2	0.07	—	—
Hayes and Harlington	46	1.73	—	—	11	0.41	1	0.04	—	—	—	—
Hendon (<i>Borough</i>)	217	1.76	1	0.01	143	1.16	7	0.06	7	0.06	—	—
†Heston and Isleworth (<i>Borough</i>)	208	2.56	—	—	58	0.72	3	0.04	3	0.04	—	—
Hornsey(<i>Borough</i>)	123	1.27	—	—	70	0.72	4	0.04	5	0.05	—	—
Kingsbury ..	37	1.80	1	0.05	20	0.97	—	—	3	0.15	—	—
†Ruislip-Northwood	21	1.20	—	—	8	0.46	—	—	1	0.06	—	—
Southall-Norwood	180	4.33	1	0.02	25	0.60	4	0.10	—	—	—	—
Southgate ..	100	1.75	—	—	8	0.14	—	—	3	0.05	1	0.02
Staines ..	111	5.03	—	—	22	1.00	2	0.09	—	—	—	—
Sunbury ..	55	4.07	—	—	29	2.15	1	0.07	2	0.15	—	—
Teddington ..	94	4.00	—	—	4	0.17	1	0.04	3	0.13	—	—
Tottenham ..	458	2.92	4	0.03	151	0.96	9	0.06	4	0.03	1	0.01
Twickenham (<i>Borough</i>)	96	2.35	—	—	27	0.66	1	0.02	1	0.02	1	0.02
†Uxbridge ..	69	2.13	—	—	9	0.28	—	—	1	0.03	—	—
Wealdstone ..	47	1.66	—	—	5	0.18	—	—	—	—	—	—
Wembley ..	111	2.08	—	—	32	0.60	6	0.11	6	0.11	—	—
Willesden ..	421	2.25	1	0.01	247	1.32	10	0.05	10	0.05	2	0.01
Wood Green ..	110	2.02	—	—	33	0.61	1	0.02	3	0.06	—	—
Yiewsley and West Drayton	31	2.26	1	0.07	9	0.66	—	—	1	0.07	1	0.07
<i>Rural—</i>												
Hendon ..	48	0.94	—	—	19	0.37	3	0.06	4	0.08	2	0.04
South Mimms ..	10	1.49	2	0.30	6	0.89	—	—	—	—	—	—
THE COUNTY ..	4,793	2.82	29	0.02	1,462	0.86	87	0.05	80	0.05	10	0.006

The above statistics (except the rates) were supplied by the Registrar-General.

† Including non-civilian cases.

DYSENTERY.—Thirty-six cases of dysentery were notified in Middlesex during 1932. The number of cases notified in previous years were : 6 in 1931, 13 in 1930, 40 in 1929, 6 in 1928, and 2 in 1927. Of the thirty-six cases, thirty were notified in the Urban District of Southall-Norwood, and occurred at the London County Council's Mental Hospital, Hanwell.

CEREBRO-SPINAL FEVER.—Forty-four cases were notified during the year, as compared with 34 cases in 1931, and 19 in 1930. Fourteen notifications were recorded in Willesden (ten in the first quarter of the year) and eight in the district of Heston and Isleworth. The total for 1932 is the highest for any year since 1917. Thirty-six cases terminated fatally.

PNEUMONIA.—The number of cases of *acute primary pneumonia* notified in 1932 was 1,861 : a somewhat smaller number than that for the previous year.

The number of deaths from *all forms of pneumonia* during 1932 was 1,044, corresponding to a death-rate from this disease of 0·61 per 1,000 living, compared with 1,120 deaths and a death-rate of 0·68 in 1931.

ENCEPHALITIS LETHARGICA.—Fifteen cases were notified and seventeen deaths recorded during 1932, as compared with 18 cases and 38 deaths in the previous year. Owing to difficulties of diagnosis, there is every reason to think that the number of notifications is a considerable under-estimate of the incidence of this disease, and the number of deaths recorded supports this view.

ACUTE POLIOMYELITIS.—Twenty-six cases were notified, none of which ended fatally. In previous years the notified cases were : 20 in 1931, 19 in 1930, 13 in 1929, 14 in 1928, 26 in 1927 and 45 in 1926.

ACUTE POLIO-ENCEPHALITIS.—Four cases were notified, and four deaths were recorded by the Registrar-General. During the preceding five years the numbers of notifications were : 0 in 1931, 7 in 1930, 5 in 1929, 2 in 1928, 4 in 1927.

MEASLES.—The compulsory notification of measles is operative in only a few districts in the County, so that accurate information of the incidence of the disease is not available. The mortality from measles is, however, an indirect measure of its incidence, and the following table shows the annual number of deaths from measles in Middlesex during the past 10 years :—

Year.				Deaths.	Year.				Deaths.
1923	..	..	..	35	1928	..	..	..	216
1924	..	..	..	191	1929	..	..	..	6
1925	..	..	..	27	1930	..	..	..	135
1926	..	..	..	160	1931	..	..	..	16
1927	..	..	..	4	1932	..	..	..	133

The biennial fluctuation, which is characteristic of measles, is well shown.

As has been pointed out on many previous occasions, in the alternate years of prevalence measles takes a greater toll of life than does scarlet fever, especially amongst young children. In spite of this fact, there is still a tendency on the part of the public to regard measles as a trivial childish ailment, yet a case of measles may call for medical and nursing skill of a high order. The provision of further beds in isolation hospitals, where serious cases of this disease can be cared for, is greatly needed. More than half the deaths from measles recorded in the County in 1932 were those of children under two years of age.

OPHTHALMIA NEONATORUM.—The number of notifications received during 1932 was 131, or a case-rate of 5·15 per 1,000 births. This rate does not differ significantly from those recorded during the past few years.

PUERPERAL FEVER AND PUERPERAL PYREXIA.—Notifications of 88 cases of puerperal fever (3·5 per 1,000 births) and 278 cases of puerperal pyrexia (10·9 per 1,000 births) were received during 1932. The corresponding figures for the year 1931 were as follows :—

- Puerperal fever, 93 notifications (3·3 per 1,000 births).
- Puerperal pyrexia, 216 notifications (8·5 per 1,000 births).

The number of deaths which occurred in the County during 1932 due to puerperal sepsis was 45, equivalent to a maternal mortality-rate from sepsis of 1·77 per 1,000 births. This rate is somewhat higher than that which obtained in 1931.

The diagram on page 9 illustrates in graphic form the variations since 1911 in maternal death-rate from sepsis and from other causes associated with pregnancy and child-birth.

ERYSIPELAS.—During the last few years the incidence of erysipelas has been considerably higher than formerly was the case, and in 1932 the number of cases notified viz., 573, was the highest on record.

For the preceding years the figures were: 1931, 519; 1930, 568; 1929, 521; 1928, 525; 1927, 351; 1926, 395.

MALARIA.—Eight cases of malaria were notified, in all instances infection was considered to have been contracted abroad.

RELAPSING FEVER, CONTINUED FEVER.—One notification of each of these conditions was received.

CHOLERA, PLAGUE, TYPHUS, ANTHRAX.—No cases of any of these diseases were notified.

PUBLIC VACCINATION.

The table on page 63 has been compiled from annual returns of Vaccination Officers, and relates to births registered during the year 1931, the figures for that year being the latest available.

The results as at 31st January, 1933, may be summarised as follows:—

Births registered during 1931	22,776*
Infants successfully vaccinated	9,936
Infants insusceptible to vaccination	101
Infants who had had smallpox	—
Statutory declarations of conscientious objection	8,667
Infants died unvaccinated	856
Vaccination postponed by medical certificates	343
Removals to other districts	852
Removals to places unknown, &c.	1,028
Otherwise unaccounted for	983

* This figure does not include re-registered births or cases of children born in other districts.

Thus, of 22,766 children whose births were registered in Middlesex in 1931, 856 died unvaccinated. Of the remainder, 10,037 (44·09 per cent.) were successfully vaccinated or were certified to be insusceptible to smallpox or vaccination. Statutory declarations of conscientious objection were made in respect of 8,667 infants (38·07 per cent.), whilst 3,206 infants were not vaccinated for various reasons (postponement on medical certificate, removals, &c.).

VACCINATIONS PERFORMED BY PUBLIC VACCINATORS DURING 1932.

Vaccination District or Poor Law Institution.	Vaccinations.			Successful re-vaccinations.
	Under 1 Year.	1 Year and upwards.	Totals.	
<i>Northern Area—</i>				
North Middlesex Hospital and Edmonton House	—	2	2	—
Edmonton (North)	166	34	200	—
Edmonton (South)	114	12	126	2
Enfield (Cooper's Lane) and Enfield Town	97	10	107	2
Enfield Highway and Ponders End	109	8	117	7
Tottenham (High Cross)	74	9	83	3
Tottenham (Lower, East)	110	20	130	2
Tottenham (Lower, West)	80	12	92	8
Tottenham (West Green)	205	58	263	22
<i>North-Eastern Area—</i>				
Finchley (North)	24	4	28	4
Finchley (South)	17	8	25	4
Friern Barnet	14	4	18	1
Highgate	78	15	93	35
Hornsey (Harringay)	170	14	184	15
Southgate and Enfield (Cockfosters)	108	3	111	4
South Mimms	20	—	20	—
Winchmore Hill	51	3	54	1
Wood Green	181	12	193	10
<i>Central Area—</i>				
Burnt Oak and Watling Estate	90	21	111	25
Child's Hill	27	9	36	41
Edgware, Little Stanmore and Lower Hale	60	14	74	7
Erskine Hill Residential School (L.C.C.)	—	—	—	—

Vaccination District or Poor Law Institution.	Vaccinations.			Successful re-vacci- nations.
	Under 1 Year.	1 Year and upwards.	Totals.	
<i>Central Area—continued.</i>				
Golders Green and Hampstead Garden Suburb ..	63	6	69	—
Great Stanmore and Harrow Weald	69	6	75	—
Harrow-on-the-Hill	62	3	65	12
Hendon (Central) and Hendon (West) (part) ..	185	17	202	77
Kingsbury	65	5	70	1
Mill Hill (part)	59	4	63	39
Pinner	61	1	62	1
Redhill County Hospital and Institution	287	6	293	2
Wealdstone	74	13	87	4
Wembley	148	4	152	10
<i>Willesden Area—</i>				
Central Middlesex County Hospital	15	9	24	—
Harlesden	411	43	454	23
Kilburn	507	71	578	74
<i>Western Area—</i>				
Acton	258	15	273	13
Children's Home, Hillingdon (Bartram Lodge) ..	8	—	8	—
Cowley and Hillingdon	238	12	250	8
Ealing (part) and West Twyford	170	11	181	3
Hanwell and Ealing (part), Greenford and Perivale	270	17	287	6
Hanwell Residential School (L.C.C.)	—	—	—	—
Harefield	39	1	40	1
Hayes	116	17	133	2
Hillingdon County Hospital	1	4	5	1
Northolt	31	—	31	—
Norwood	194	9	203	6
Ruislip	112	5	117	7
Uxbridge and Ickenham	7	1	8	2
Yiewsley and West Drayton.. .. .	51	5	56	—
<i>Southern Area—</i>				
Ashford	74	5	79	—
Ashford Residential School (L.C.C.).. .. .	—	—	—	—
Bedfont, Feltham and Hanworth	130	7	137	1
Brentford and Brentford End	115	6	121	4
Chiswick	188	27	215	54
Cranford, Harlington and Harmondsworth (Sipson and Heathrow).	44	—	44	—
Hampton	28	1	29	—
Hampton Hill (S. James)	18	—	18	—
Hampton Wick	18	—	18	1
Harmondsworth (Longford) and Stanwell	52	1	53	2
Heston, Isleworth (part)	264	5	269	8
Isleworth (part)	209	6	215	4
Laleham and Staines	32	8	40	—
Shepperton and Littleton	33	—	33	3
Staines Institution	1	1	2	—
Sunbury	47	—	47	1
Teddington	168	3	171	12
Twickenham	238	9	247	2
Warkworth House, Isleworth	5	5	10	—
West Middlesex County Hospital	—	1	1	—
Totals	6,960	642	7,602	579

RETURN OF VACCINATION OFFICERS RELATING TO BIRTHS REGISTERED IN 1931.

Registration Sub-Districts comprised in the Vaccination Officer's District.	Name of Vaccination Officer.	Number of Births registered from 1st January to 31st December, 1931.	Number of these Births duly entered by 31st January, 1933, in Vaccination Register, viz. :—				Number of these Births which, on 31st January, 1933, remained unentered in the Vaccination Register on account of—			Number of these Births remaining on 31st Jan., 1933, neither entered in the Vaccination Register nor temporarily accounted for.	Number of Certificates of successful Primary Vaccination of children under 14 received during 1932.	Number of Statutory Declarations of conscientious objection actually received during 1932.
			Success- fully Vaccinated.	In- susceptible to Vaccina- tion.	Had Small Pox.	Statutory Declara- tions of con- scientious objection.	Died un- vaccinated.	Post- ponement by Medical Certificate.	Removal to other Districts.	Removal to places unknown and cases not found.		
<i>Northern Area—</i>												
Edmonton ...	T. E. David	2,215	604	3	—	1,135	107	39	149	133	45	1,124
Enfield ...	R. W. Perring	839	229	4	—	401	30	—	9	37	129	416
Tottenham, East ...	H. J. Roynon	988	265	2	—	523	38	19	7	20	114	832
Tottenham, West ...	H. J. Roynon	678	182	—	—	368	30	1	4	14	79	
<i>North-Eastern Area—</i>												
Finchley ...	S. M. Baldock	765	285	3	—	386	48	—	—	43	—	410
South Mimms ...	S. M. Baldock	85	41	—	—	35	5	1	—	3	—	
Hornsey ...	G. E. Dew	927	486	11	—	335	34	2	25	19	15	324
Southgate ...	T. E. David	473	223	3	—	182	22	6	6	3	28	191
Wood Green ...	R. W. Perring	587	190	1	—	266	20	—	24	34	52	259
<i>Central Area—</i>												
Harrow ...	F. Moore	1,975	898	9	—	869	70	6	48	75	—	743
Hendon ...	A. E. Taylor	1,603	882	12	—	316	57	8	148	137	43	311
Edgware ...	Miss A. L. Coomber	860	346	6	—	256	27	3	102	4	116	275
<i>Willesden Area—</i>												
Kilburn ...	W. McAuliffe	1,142	627	7	—	352	43	15	15	72	11	560
Harlesden ...	W. McAuliffe	932	412	6	—	329	49	9	41	80	6	
<i>Western Area—</i>												
Acton ...	G. F. K. Stidworthy	771	379	—	—	279	25	27	11	28	22	248
Ealing ...	B. W. La Nauze	1,308	637	9	—	448	29	7	41	25	112	456
Hayes ...	E. J. Burridge	892	321	—	—	414	31	11	15	35	65	422
Uxbridge ...	A. Finch	1,070	605	7	—	341	48	7	45	17	—	297
Hanwell ...	Mrs. J. Clough	601	286	—	—	263	30	5	5	12	—	272
<i>Southern Area—</i>												
Brentford ...	H. C. Gardener	201	96	2	—	62	6	2	6	8	19	70
Chiswick ...	H. S. Baker	368	193	2	—	115	9	9	3	17	20	110
Isleworth ...	W. J. Barkwill	1,442	660	7	—	376	53	125	112	69	40	473
Staines ...	A. H. Bates	355	148	1	—	125	8	3	12	58	—	126
Sunbury ...	R. Flood	619	310	—	—	209	11	4	2	45	38	198
Twickenham ...	W. J. Barkwill	595	325	4	—	146	15	32	16	30	27	128
Hampton ...	W. D. Elsam	475	306	2	—	136	11	2	6	10	2	138
Totals		22,766	9,936	101	—	8,667	856	343	852	1,028	983	8,383

ISOLATION HOSPITAL ACCOMMODATION.

(a) *Smallpox*.—The County Council is the authority for the provision of hospital accommodation for smallpox for the whole of the administrative county. Under the terms of an agreement with the London County Council, cases of smallpox occurring in any part of Middlesex are removed by ambulance to the London County Council's diagnosis and observation station at South Wharf, Rotherhithe, and thence for treatment to one of the River Hospitals.

(b) *Other acute specific fevers*.—Detailed information regarding the isolation hospitals provided in Middlesex by local sanitary authorities, or combinations of such authorities, was contained in the "Survey" annual report for 1930.

Further progress was made in the course of the year in the preparation of a scheme in accordance with Section 63 of the Local Government Act, 1929, to secure the provision of adequate treatment for cases of infectious disease throughout the whole county. Numerous conferences of local sanitary authorities were held during the year and although agreement was early reached among the districts in South Middlesex, a considerable diversity of opinion was expressed by representatives of districts in other parts of the County. The County Council's scheme, as finally amended in the desire to meet local wishes whilst preserving the principle of large hospital areas, was not submitted to the Ministry of Health until 1933.

TUBERCULOSIS.

The number of new cases of tuberculosis reported in the County by district medical officers of health during 1932 was 2,410, an increase of 4 as compared with the total for 1931. Of these cases, 20 were those of persons who had changed their place of residence from one sanitary district to another within the County and, in accordance with the Regulations, were the subject of primary notification in each district. Thus the net number of new cases in the County as a whole was 2,390. This number includes not only the new cases which have arisen and been diagnosed in the course of the year, but also the considerable number of persons with established disease who during the year have removed into the County.

Of the gross total, 2,108 (87·47 per cent.) were notified by medical practitioners or school medical officers in accordance with the Regulations, whilst 302 (12·53 per cent.) came to the notice of medical officers of health otherwise than by formal notification.

The number of deaths attributed to tuberculosis during the year was 1,144 (a decrease of 16 as compared with 1931), of which 965 were due to pulmonary and 179 to non-pulmonary tuberculosis, corresponding to a death rate from all forms of the disease of 0·67 per 1,000 persons living.

TUBERCULOSIS NOTIFICATIONS AND DEATHS FOR PAST 10 YEARS.

	Tuberculosis of Respiratory System.				All Forms of Tuberculosis.			
	Number of Notifications.	Rate per 1,000 living.	Number of Deaths.	Death-rate per 1,000 living.	Number of Notifications.	Rate per 1,000 living.	Number of Deaths.	Death-rate per 1,000 living.
1923	1,565	1·23	916	0·72	1,944	1·52	1,120	0·88
1924	1,635	1·27	986	0·76	1,982	1·54	1,188	0·92
1925	1,630	1·25	922	0·71	1,982	1·52	1,097	0·84
1926	1,655	1·25	944	0·71	2,009	1·52	1,138	0·86
1927	1,621	1·20	1,024	0·76	2,015	1·49	1,193	0·88
1928	1,478	1·04	909	0·64	1,819	1·28	1,071	0·76
1929	1,606	1·10	1,058	0·73	1,911	1·31	1,215	0·83
1930	1,623	1·04	981	0·63	2,015	1·29	1,164	0·75
1931	1,749	1·07	989	0·60	2,120	1·29	1,160	0·71
1932	1,733*	1·02	965	0·57	2,108*	1·24	1,144	0·67

* These figures were obtained from the weekly notifications of the district medical officers of health in the County; the remaining statistics (except the rates) were supplied by the Registrar-General.

In the above table are set out figures showing both notifications and deaths and the corresponding rates for both pulmonary and non-pulmonary tuberculosis for the last ten years. The death-rate from tuberculosis represents a more accurate measure of the control of the disease than does a calculation based upon the number of notifications received. It is very satisfactory to note, therefore, that the death-rates, as well as the notification rates, continue to show a progressive fall and the figures for 1932 are the lowest ever recorded in the County. Having in mind the continuance of the economic depression which might reasonably have been expected to contribute both to incidence of, and mortality from, tuberculosis, the creation of a new low record is a matter for satisfaction.

The diagram on page 68 illustrates the fall in mortality from tuberculosis which has taken place during the present century.

The following table shows the age and sex distribution of 2,390 new cases, which occurred in 1932, divided into pulmonary and non-pulmonary groups and compared with the number of deaths, similarly classified.

NEW CASES AND DEATHS DURING 1932.

Age Periods.				New Cases.*				Deaths.†			
				Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
				M.	F.	M.	F.	M.	F.	M.	F.
0-1	..	..	..	1	—	6	7	—	2	9	12
1-5	..	..	..	8	9	38	25	5	2	21	18
5-10	..	..	..	36	15	36	35	} 5	7	16	16
10-15	..	..	..	17	21	29	33				
15-20	..	..	..	101	122	20	27				
20-25	..	..	..	140	208	22	28	} 86	126	20	14
25-35	..	..	..	249	264	22	45				
35-45	..	..	..	183	136	12	22	117	129	6	7
45-55	..	..	..	175	68	9	7	101	88	7	8
55-65	..	..	..	98	48	7	3	103	45	3	3
65 and upwards	..	..	..	30	18	2	4	81	31	5	4
Totals..	..	..	..	1,038	909	203	240	20	17	4	6
								518	447	91	88

* These figures are summarised from the weekly returns received from the medical officer of health of each district in accordance with the Public Health (Tuberculosis) Regulations, 1930, and include notified and non-notified cases in the County as a whole during the period of 52 weeks ended 31st December, 1932.

† Statistics supplied by the Registrar-General.

In the table on pages 66 and 67 are set out details relating to notifications and deaths in each sanitary district in Middlesex, together with the numbers of persons whose names at the close of the year were on the tuberculosis registers kept by the various local sanitary authorities.

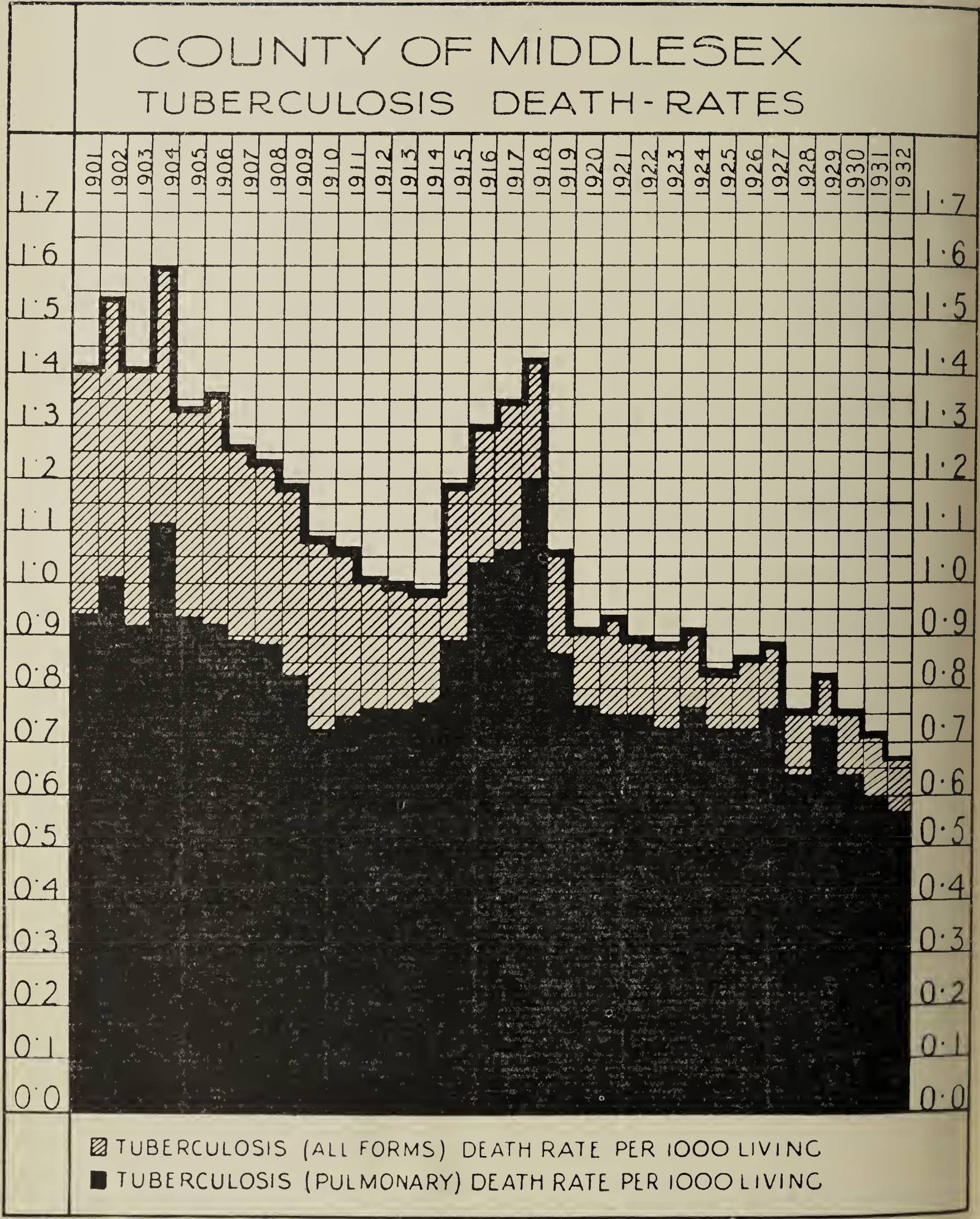
NOTIFICATIONS OF DEATHS FROM, AND TOTAL NUMBER OF CASES OF, TUBERCULOSIS IN EACH SANITARY DISTRICT.*

District.	Tuberculosis (all forms).				Cases of tuberculosis remaining on the 31st December, 1932, on the Registers of Notifications kept by Medical Officers of Health of districts in the County.					
	Cases notified, 1932.		Deaths, 1932.		Pulmonary.			Non-Pulmonary.		
	No.	Rate per 1,000 living.	No.	Rate per 1,000 living.	Males.	Females.	Total.	Males.	Females.	Total.
Urban—										
Acton (<i>Borough</i>)	100	1.42	56	0.79	158	150	308	35	25	60
Brentford and Chiswick (<i>Borough</i>)	82	1.30	47	0.75	268	265	533	61	89	150
Ealing (<i>Borough</i>)	167	1.36	79	0.64	203	163	366	55	54	109
Edmonton	98	1.19	59	0.72	280	202	482	83	82	165
Enfield	90	1.29	49	0.70	186	157	343	43	47	90
Feltham	10	0.59	13	0.77	9	11	20	9	9	18
Finchley	53	0.88	31	0.51	107	107	214	27	34	61
Friern Barnet	25	1.06	11	0.47	32	31	63	9	7	16
Hampton	14	1.07	6	0.46	15	18	33	9	9	18
Hampton Wick	3	1.02	3	1.02	4	9	13	—	—	—
Harrow	26	0.88	15	0.51	50	49	99	3	11	14
Hayes and Harlington	31	1.16	23	0.86	38	36	74	18	14	32
Hendon (<i>Borough</i>)	145	1.18	77	0.62	299	268	567	105	124	229
Heston and Isleworth (<i>Borough</i>)	105	1.29	58	0.72	113	98	211	37	36	73
Hornsey (<i>Borough</i>)	119	1.23	63	0.65	265	270	535	75	74	149
Kingsbury	18	0.88	6	0.29	24	30	54	8	7	15
Ruislip-Northwood	18	1.03	3	0.17	40	38	78	13	6	19
Southall-Norwood	70	1.69	26	0.63	97	97	194	25	30	55
Southgate	51	0.89	38	0.66	92	68	160	19	25	44
Staines	12	0.54	16	0.72	25	18	43	1	2	3
Sunbury	16	1.18	7	0.52	22	11	33	5	8	13
Teddington	29	1.23	17	0.72	45	46	91	24	11	35
Tottenham	265	1.69	119	0.76	382	311	693	116	88	204
Twickenham (<i>Borough</i>)	59	1.44	33	0.81	76	77	153	23	21	44

Uxbridge	..	..	..	..	..	†42	1·30	22	0·68	57	30	87	20	18	38	125
Wealdstone	..	..	..	..	..	36	1·27	17	0·60	61	46	107	16	22	38	145
Wembley	..	..	..	..	..	59	1·10	24	0·45	161	122	283	26	42	68	351
Willesden	..	..	..	..	..	247	1·32	146	0·78	332	311	643	79	84	163	806
Wood Green	..	..	..	..	..	56	1·03	41	0·75	117	83	200	29	50	79	279
Yiewsley and West Drayton	..	..	..	..	..	10	0·73	13	0·95	35	25	60	17	16	33	93
Rural—																
Hendon	..	..	..	..	..	44	0·87	20	0·39	79	64	143	18	13	31	174
South Mimms	..	..	..	..	..	8	1·19	6	0·89	12	13	25	5	3	8	33
The County	..	..	..	..	..	2,108	1·24	1,144	0·67	3,684	3,224	6,908	1,013	1,061	2,074	8,982

* Statistics as to deaths supplied by the Registrar-General. Other statistics obtained from periodical returns from district medical officers of health.

† Includes 5 non-civilian cases.



SCHEME FOR THE PREVENTION AND TREATMENT OF TUBERCULOSIS.

The County Council's scheme for the prevention and treatment of tuberculosis has been set out in full detail in previous annual reports. The scheme from its commencement has been found to function with efficiency and no material change has been introduced during the year under review.

(a) *Tuberculosis Dispensaries.*

Information regarding the tuberculosis dispensary arrangements in Middlesex is contained in the table which follows:—

Area.	Districts served.	Tuberculosis Medical Officer.	Head Dispensary.	Branch Dispensaries.
1	Edmonton, Enfield	Dr. H. Evans ..	279, Fore Street, Edmonton.	—
1A	Tottenham	Dr. S. T. Davies ..	140, West Green Road, Tottenham.	—
2	Finchley, Friern Barnet, Hendon (Borough), Hornsey, Southgate, Wood Green, South Mimms.	Dr. J. R. B. Dobson	Chester Villa, High Road, N. Finchley.	10, Alexandra Road, Hornsey ; 158, The Broadway, West Hendon.
3	Harrow, Kingsbury, Ruislip-Northwood, Wealdstone, Wembley, Willesden, Hendon (Rural).	Dr. O. Bruce	Pound Lane, Willesden.	53, Greenhill Crescent, Harrow.
4	Acton, Ealing, Hayes and Harlington, Southall-Norwood, Uxbridge, Yiewsley and West Drayton.	Dr. F. R. B. Atkinson	Green Man Passage, Green Man Lane, West Ealing.	School Clinic, 45 and 47, Avenue Road, Acton ; 156, High Street, Uxbridge.
5	Brentford & Chiswick, Feltham, Hampton, Hampton Wick, Heston & Isleworth, Staines, Sunbury, Teddington, Twickenham.	Dr. W. S. Forbes ..	28, Bell Road, Hounslow.	14, Heathfield Terrace, Chiswick ; 12, Thames Street, Staines ; 1, Staines Road, Twickenham.

(b) *Institutional Accommodation.*

Reference was made in the annual report for last year to the great increase that had occurred in the demand for institutional accommodation, and special attention was drawn to the fact that the usual seasonal decline in the number of patients seeking admission to institutions, which hitherto had occurred during the winter months, had failed to materialise during the winter of 1931-32. Among other possible causes it was suggested that this state of affairs might be correlated, to some extent at least, to the national economic and financial crisis which occurred in the summer of 1931. The figures relating to the demand for institutional treatment during 1932 lend additional support to this view, and demonstrate that the increased demand experienced during 1931 can not be attributed to any purely temporary cause. During the early months of 1932 there was a slight diminution in the number of cases undergoing institutional treatment, but this fall was soon checked and thereafter the demand for accommodation rose steadily throughout the summer and early autumn months. The peak was reached during October, at which time over 950 patients were receiving treatment in hospitals or sanatoria. This figure declined somewhat, but on the 31st December there were 920 cases remaining in institutions, as compared with about 900 at the close of the previous year.

It is apparent that the existing accommodation for pulmonary tuberculosis belonging to the County Council is not adequate to meet the needs of the County, and increasing numbers of patients have to be dealt with by utilising accommodation in various existing voluntary institutions.

The Council possesses two sanatoria for the reception of patients suffering from pulmonary tuberculosis, viz., Harefield County Sanatorium and Clare Hall County Sanatorium. Account of these institutions has been given in my Annual Report for 1930, and reference to this will show that Harefield Sanatorium is an institution consisting entirely of adapted wooden buildings, except for a large old mansion used for certain administrative purposes and for the housing of the medical superintendent and medical staff.

Since the acquisition by the Council in 1919 of Harefield Park and the Australian War Hospital, out of which the sanatorium was constructed, it has been appreciated that the buildings had a limited

life and that the institution could only be looked upon as a temporary, although valuable, means of meeting an urgent requirement and would ultimately need to be replaced with a structure of more permanent character. Especially was it realised that the accommodation provided for the nursing and domestic staff was thoroughly unsatisfactory except as a temporary expedient, and in 1929 a complete scheme of reconstruction of the sanatorium was prepared and approved by the Council. As a commencement it was decided to build the nurses' home and this work was put in hand. The new building was completed in 1932, and on 23rd February the ceremony of opening the home was performed by Mrs. County Alderman G. Barnes, Chairman of the Sanatoria House Committee.

The building is much appreciated by the staff and forms an excellent example of a modern nurses' home. I am indebted to the County Architect for the following description which was prepared for the information of those who attended the opening ceremony :—

“ The Home stands on a level site facing the cricket field, and the windows on the main front command extensive views over the valley of the River Colne to the Chiltern Hills. The main front faces slightly south of west, and the main entrance is in the centre of this front, with secondary entrances at the north and south ends.

“ The building consists of a main three-storey block with a single-storey block in rear, connected by two covered ways forming an enclosed courtyard between the two portions. The main block contains 103 bedrooms on the three floors, with bathroom and lavatory accommodation in wings at the north and south ends ; each floor is arranged so that the nurses occupy the northern part of the building nearer the mansion, and the maids the southern part ; shampoo rooms and ‘ wash-and-iron ’ rooms are provided for nurses and maids, and on the ground floor is a ‘ quiet room ’ for reading and writing, and a small lecture room for instructional purposes. Residential quarters on two floors are provided for the matron, and there are two smaller self-contained suites for the home sister and the sister-tutor.

“ The single-storey block contains dining and recreation rooms for nurses and maids, with cloak-rooms and a small tea-lobby, and kitchen quarters consisting of kitchen, main scullery, vegetable scullery and stores. The whole of the kitchen quarters are equipped with electrical cooking apparatus.

“ All floors and staircases are of fireproof construction, and fire-fighting appliances are installed at suitable points throughout the building. Lighting is by electricity, an electric goods lift serves all floors, and lavatory basins with hot and cold services are provided in all bedrooms. Heating is by hot water on the low pressure system, and this, together with the domestic hot water supply, is served from boilers in a heating chamber under the back block ; the systems are so arranged that they can be linked up to a central boiler house at a later date when the rebuilding of the Institution reaches a further stage.

“ The building has been erected from plans prepared by the County Architect, Mr. W. T. Curtis, F.R.I.B.A., the general contractors were Messrs. Y. J. Lovell & Son, of Gerrards Cross, and the cost, including new roadways and paths, was approximately £33,000.”

In addition to the Council's sanatoria, since 1914 beds have been available at the tuberculosis dispensary at Hounslow for the reception of 16 cases for observation and diagnosis. Owing to a variety of reasons it has not been possible to keep these beds fully occupied, and although they have proved a very valuable feature of the County Council's scheme for the treatment of tuberculosis, especially of late years the average number of in-patients throughout the year has not been high enough to enable the beds to be maintained at a reasonable cost per bed. As an experiment, therefore, a small detached building at Harefield County Sanatorium has been adapted for the reception of four adult patients for observation, and since 19th December, 1932, the use of beds at Hounslow has been discontinued. It is hoped that it may prove practicable to utilise the vacated accommodation at Hounslow in connection with the County Council's duties under the acts relating to Public Assistance

The following statement shows the total number of beds belonging to, or reserved for the sole use of, the Council during 1932 :—

Institution.	Accommodation.			Type of case.
	Adults.		Children.	
	M.	F.		
County Sanatorium, Harefield	129	129	56	Pulmonary—sanatorium.
County Sanatorium, Clare Hall, South Mimms	120	66	—	Pulmonary—observation. Pulmonary—late sana- torium and hospital.
*County Council Hospital-Dispensary, Hounslow.	9	7	—	Pulmonary—observation.
Heatherwood Hospital, Ascot	—	—	25	Non-pulmonary.
Victoria Home, Margate	—	—	6	Non-pulmonary.

* Closed December 19th, 1932.

Other Institutions at which Patients have been maintained during 1932.

<i>Sanatoria.</i> —Brompton Hospital Sanatorium, Frimley; Cotswold, Gloucester; Daneswood, Woburn Sands; Eversfield, St. Leonards; Fairlight, Hastings; Grosvenor, Ashford, Kent; Hawley, Devon; Holy Cross, Haslemere; Ipswich Borough; King Edward VII, Midhurst; King George's, Bramshott; Mount, Bishopstoke (Hants County Council); National, Benenden; Royal National, Bournemouth; Royal National, Ventnor; St. Michael's, Axbridge.	Pulmonary— various types.
<i>Hospitals.</i> —St. Anthony's, Cheam; St. Barnabas', Torquay; City of London, Victoria Park; Colindale, Hendon; Brompton; St. Mary's; Seamen's and University College Hospitals, London.	
<i>Colonies.</i> —British Legion Village, Preston Hall, Aylesford; Burrow Hill, Frimley; Papworth Village Settlement, Papworth Hall, Cambridge.	
<i>Homes for very advanced cases.</i> —St. Joseph's Hospice, Hackney; St. Peter's, Kilburn.	
<i>Hospitals.</i> —All Saints, Eastbourne; Atkinson Morley, Wimbledon; Hendon Cottage; Holy Cross, Broadstairs; Royal National Orthopædic, London, and Country Branch, Stanmore; Royal Sea-Bathing, Margate; St. Anthony's, Cheam; St. Vincent's Orthopædic, Pinner; Shropshire Orthopædic, Oswestry; Wingfield Orthopædic, Oxford; and Prince of Wales's, Tottenham; All Saints, St. Mary's, St. Thomas's and University College Hospitals, London.	Non-pulmonary— adults.
Alexandra Hospital for Hip Disease, Swanley, Kent; Holy Cross, Broadstairs; Holy Cross, Ramsgate; Lord Mayor Treloar Cripples', Alton; Queen Mary's, Carshalton; Royal National Orthopædic, Country Branch, Stanmore; Royal Sea-Bathing, Margate; St. Michael's Orthopædic, Clacton; St. Nicholas and St. Martin's Orthopædic, Pyrford; St. Vincent's, Pinner; Wingfield Orthopædic, Oxford; and Cheyne Hospital, Chelsea; Hendon Cottage; Prince of Wales's, Tottenham; University College Hospital, London.	

THE COUNTY SANATORIUM, HAREFIELD.

The following summary of the year's work at Harefield County Sanatorium has been prepared by the Medical Superintendent, Dr. J. R. McGregor.

Admissions.

During the year ended 31st December, 1932, 667 patients were admitted to the Institution for treatment—295 males, 300 females and 72 children. In addition to these, 82 children were admitted for observation, 37 of whom were found to have definite signs of pulmonary tuberculosis and were transferred to the treatment wards.

Discharges.

During the same period 669 patients were discharged—295 males, 301 females and 73 children after treatment. In addition, 42 children were discharged after observation.

Out-Patients.

During the year out-patients were admitted on 684 occasions for the purpose of having artificial pneumothorax refills. Generally speaking, these patients came in during the morning and returned home the same day, but in two cases patients were detained for a further period of treatment.

The following table shows the condition of patients discharged after treatment during 1932 :—

Stage of disease on Admission.	Number Discharged.	Condition on Discharge.			
		Quiescent.	Improved.	No Material Improvement	Died.
CLASS T.B. MINUS—		Per Cent.	Per Cent.	Per Cent.	Per Cent.
Males	54	11·11	75·92	12·96	—
Females	69	23·18	55·07	17·39	4·34
Children	57	73·68	22·80	3·50	—
Total.. ..	180	35·55	51·11	11·66	1·66
CLASS T.B. PLUS—					
Group I—					
Males	27	—	85·18	14·81	—
Females	23	21·73	65·21	13·04	—
Children	3	100·00	—	—	—
Total.. ..	53	15·09	71·69	13·20	—
CLASS T.B. PLUS—					
Group II—					
Males	113	—	88·49	8·84	2·65
Females	91	13·18	67·03	17·58	2·19
Children	5	60·00	40·00	—	—
Total.. ..	209	7·12	77·99	12·44	2·39
CLASS T.B. PLUS—					
Group III—					
Males	101	—	45·54	35·64	18·81
Females	118	—	33·89	33·89	32·20
Children	8	25·00	25·00	25·00	25·00
Total.. ..	227	0·88	38·76	34·36	25·99

The classification and terms used are those of the Ministry of Health. See explanatory notes on pages 74 and 75.

The following table shows the results of the examination of 77 children primarily admitted for observation, who were discharged during the year :—

Tuberculous	35.
Non-tuberculous	40.
Doubtful	2.*

* No definite diagnosis was made as the patients were not here long enough.

The diagnosis was made by clinical, microscopical and x-ray examination.

During the year 1932 there were 67 deaths in the institution, males 22, females 43, children 2.

Approximately 850 x-ray photographs were taken during the year. Of these 17 were of eases other than patients in the sanatorium, who were sent in by the County tuberculosis officers for examination. In addition numerous screen examinations were made.

The accessory methods of treatment have again been employed freely in suitable cases.

Artificial pneumothorax was begun in 39 new eases, and continued in 14 cases transferred from other hospitals or institutions. It was attempted but could not be carried out, or was abandoned after a period of refills, owing to the onset of complications, in 16 eases.

68 out-patients attended periodically during the year for artificial pneumothorax refills, making a total of 684 attendances. Of these out-patients, 9 were discharged as no longer requiring treatment. In four cases a pneumothorax was started in the second lung, where disease had been favourably controlled or arrested in the first.

One patient, in whom an artificia pneumothorax had arrested the disease, was discharged to a general hospital owing to the onset of gastrie carcinoma.

The total number now receiving this special form of treatment is 93, including those patients who are able to live at home and attend for the necessary refills. Of these out-patients a large number are able to follow their occupations, or to attend to household duties.

Other surgical treatment was advised in some cases and patients were transferred to chest hospitals for the following operations :—

Thoracoplasty	..	..	..	..	3
Cauterisation of adhesions	..	..	..	..	3
Phrenic evulsion	..	..	..	..	1

The operation of phrenic evulsion was performed three times at the sanatorium, under local anaesthesia, and in each case with great benefit.

The above mentioned operations are included in the term “collapse therapy” and the aim of this treatment is to produce a collapse of the affected lung. Obviously this is only possible if the other lung is free from disease, or almost entirely so, but a successful collapse of a diseased lung is the most complete method of putting the lung at rest, and the results of the treatment show that patients with a successful collapse make a very much better recovery than similar individuals in whom the operation fails.

Collapse therapy can only have a limited application in the treatment of tuberculosis as too often it is found that disease is present in each lung, but this treatment forms an important part of the work of a sanatorium, and both for the individual and for the public health it has proved to be of great value.

THE COUNTY SANATORIUM, CLARE HALL.

The following report upon the work of the County Sanatorium, Clare Hall, has been compiled by Dr. A. C. Tabois, Medical Superintendent :—

Admissions.—During the year ended 31st December, 1932, 344 patients were admitted for treatment—227 males, 117 females.

It may be of interest to note that of these 344 admissions, 77 had received previous treatment at Harefield Sanatorium.

Discharges.—The discharges were 224, viz., 148 males, 76 females.

Deaths.—These numbered 118, of whom 75 were males and 43 females, giving a ratio of deaths to discharges of 34·50 per cent.

Type of Cases Admitted.—The type of cases admitted has been gradually increasing in severity as shown by the following statistics.

Length of Stay.—The average length of stay of discharges and deaths was 227·5 days. Owing to the class of case this has necessarily steadily increased :—

1919	..	..	..	..	109·46
1924	..	..	..	..	152·41
1929	..	..	..	..	169·93
1931	..	..	..	..	188·83

Classification of Admissions.—The following table shows the gradual increase in the severity of the cases admitted :—

—					Early.	Intermediate.	Advanced.
					Per cent.	Per cent.	Per cent.
1924	..	..	..	..	0·5	35·8	63·7
1925	..	..	..	..	0·28	22·48	77·24
1926	..	..	..	..	0·7	18·00	81·3
1927	..	..	..	..	0·9	15·30	83·8
1928	..	..	..	..	—	5·8	94·2
1929	..	..	..	..	0·3	3·4	96·3
1930	..	..	..	..	0·3	2·65	97·05
1931	..	..	..	..	1·6	6·30	92·1
1932	..	..	..	..	—	3·5	96·5

Percentage of Bed Cases.—The following are the figures from 1928 as calculated by the Ministry of Health formula :—

					Per cent.
1928	..	..	..	..	54·31
1929	..	..	..	..	55·25
1930	..	..	..	..	61·41
1931	..	..	..	..	62·28
1932	..	..	..	..	61·74

Condition on Discharge.—Table showing the condition on discharge for the last three years and, for comparison, those in the years 1917, 1922, 1927 :—

Year.	Admis- sions.	Dis- charges.	Died.	Condition on Discharge.*				
				V.M.I.	M.I.	S.I.	I.S.Q.	W.
1917	466	386	47	173	56	32	19	18
1922	415	307	134	62	71	88	31	35
1927	396	262	139	21	105	71	17	16
1930	339	207	128	12	64	60	19	18
1931	317	193	123	7	53	69	25	13
1932	344	224	118	6	62	87	29	21

* Excluding patients who went out at their own request or were dismissed. V.M.I.=Very much improved. M.I.=Much improved. S.I.=Some improvement. I.S.Q.=In statu quo. W.=Worse.

Sanocrysin and colossal antimony have both been used in a good number of cases, but the results have been very varied, and neither can in any sense be considered as a specific remedy.

STATISTICAL SURVEY OF THE WORK CARRIED OUT DURING 1932 UNDER THE COUNTY TUBERCULOSIS SCHEME.

The tables appearing on the pages which follow are those prescribed by the Ministry of Health for the purpose of the annual statistical returns of the authority. These returns present in numerical form a very complete picture of the scope and amount of work carried out in connection with the County Council's scheme for the prevention and treatment of tuberculosis. The headings of the forms of return and the nomenclature employed have been somewhat modified by the Ministry from those in use hitherto, but the results recorded will be found, on the whole, to be comparable with those published relating to previous years.

Tables A and B refer to the work of the dispensaries ; tables C, D and E relate to the amount of accommodation available and the extent of treatment afforded ; table F gives information as to the results of observation of doubtful cases, and table G the immediate results of treatment of definitely tuberculous persons. Table H aims at exhibiting statistically the after-history and ultimate fate of all tuberculous persons who have come under public medical treatment.

In order to appreciate the information contained in these tables, it is necessary to have in mind the precise meaning of the terms occurring therein, many of which are used in a special sense. Information on this matter is given below.

DEFINITIONS AND CLASSIFICATION.—Patients diagnosed as suffering from pulmonary tuberculosis are placed in the following categories :—

Class T.B. minus, viz., cases in which tubercle bacilli have never been demonstrated in the sputum ; and

Class T.B. plus, viz., cases in which tubercle bacilli have at any time been found. It should be noted that a patient originally in *Class T.B. minus* must be transferred to *Class T.B. plus* at any stage in the course of treatment if and when tubercle bacilli are found ; while, on the other hand, a patient who is once placed in *Class T.B. plus* can never revert to *Class T.B. minus*. *Class T.B. plus* is further subdivided into three groups as follows :—

Group I.—Cases with slight constitutional disturbance, if any, *e.g.*, there should not be marked acceleration of pulse nor elevation of temperature except of very transient duration ; gastro-intestinal disturbance or emaciation, if present, should not be excessive.

The obvious physical signs should be of very limited extent as follows :—Either present in one lobe only and, in the case of an apical lesion of one upper lobe, not extending below the second rib in front, or not exceeding an equivalent area in any one lobe ; or where these physical signs are present in more than one lobe, they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula.

No complication (tuberculous or other) of prognostic gravity should be present. A small area of dry pleurisy does not exclude a case from this group.

Group III.—Cases with profound systemic disturbance or constitutional deterioration, with marked impairment of function, either local or general, and with little or no prospect of recovery.

All cases with grave complications, whether tuberculous or not, are classified in this group, *e.g.*, diabetes, tuberculosis of larynx or intestine, &c.

Group II.—All cases which cannot be placed in Groups I and III.

Patients suffering from non-pulmonary tuberculosis are classified according to the site of the lesion as follows :—

- (1) Tuberculosis of bones and joints.
- (2) Abdominal tuberculosis (*i.e.*, tuberculosis of peritoneum, intestines or mesenteric glands).
- (3) Tuberculosis of other organs.
- (4) Tuberculosis of peripheral glands.

Patients suffering from multiple lesions are classified in one sub-group only, viz., in that applicable to the case which stands highest in the table.

Observation Cases.—Persons attending at, or in connection with, the dispensaries, in whose cases the tuberculosis officer cannot, within a period of one month from his first examination of the case, come to a definite diagnosis after physical examination and the application of the necessary tests. (These cases appear on Table A, under sections A (b) and B (b).)

Quiescent.—Cases which have no symptoms of tuberculosis and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

Arrested.—In pulmonary cases the term “arrested” is applied only to cases which have been “quiescent” for a period of at least two years.

In non-pulmonary cases the term “arrested” is used as soon as there is reason to believe that the disease is unlikely to recur.

Recovered.—No patient is deemed to be “recovered” until in the case of pulmonary tuberculosis, five years, and, in the case of non-pulmonary tuberculosis, three years, have elapsed without any symptoms of active disease (*i.e.*, arrest has been maintained for three years).

TABLE A.

Return showing the work of the Dispensaries during the Year 1932.

Diagnosis.	Pulmonary.				Non-Pulmonary.				Total.				Grand Total.																
	Adults.		Children.		Adults.		Children.		Adults.		Children.																		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.																	
A.— <i>New Cases</i> examined during the year (excluding contacts):—																													
(a) Definitely tuberculous ...	630	472	21	21	56	82	61	37	686	554	82	58	1,380																
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	17	13	8	6	44																
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	570	613	236	190	1,609																
B.— <i>Contacts</i> examined during the year:—																													
(a) Definitely tuberculous ...	28	48	8	5	—	—	3	1	28	48	11	6	93																
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	1	—	2	3	6																
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	135	263	300	286	984																
C.— <i>Cases</i> written off the Dispensary Registers as:—																													
(a) Reecovered ...	134	88	29	25	23	24	26	20	157	112	55	45	369																
(b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Registers as tuberculous)	—	—	—	—	—	—	—	—	715	895	557	487	2,654																
D.— <i>Number of Cases</i> on Dispensary Registers on 31st December:—																													
(a) Definitely tuberculous ...	2,024	1,531	145	117	208	239	284	206	2,242	1,770	429	323	4,764																
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	18	13	10	9	50																
1. Number of cases on Dispensary Registers on 1st January ...														4,873	2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years ...														254
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" ...														718	4. Cases written off during the year as Dead (all causes) ...														688
5. Number of attendances at the Dispensaries (including Contacts) ...														14,784	6. Number of Insured Persons under Domiciliary Treatment on 31st December ...														120
7. Number of consultations with medical practitioners:— (a) Personal ... (b) Other ...														307 4,569	8. Number of visits by Tuberculosis Officers to homes (including personal consultations) ...														950
9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes ...														15,488	10. Number of:— (a) Specimens of sputum, etc., examined (b) X-ray examinations made in connection with Dispensary work ...														2,080 920
11. Number of "Reecovered" cases restored to Dispensary Registers and included in A (a) and A (b) above ...														9	12. Number of "T.B. plus" cases on Dispensary Registers on 31st December ...														2,560

TABLE B.

Number of Dispensaries for the treatment of Tuberculosis.

Provided by the Council ...	14
Provided by Voluntary Bodies ...	Nil

TABLE C.*

Number of Beds available for the treatment of Tuberculosis on 31st December in Institutions belonging to the Council.

Name of Institution.	For Pulmonary Cases.		For Non-Pulmonary Cases.		Total.
	Adults.	Children under 15.	Adults.	Children under 15.	
County Sanatorium, Harefield	258 plus 4 (Ob- servation).	64	—	—	326
County Sanatorium, Clare Hall	186	—	—	—	186
<i>Poor Law Institutions.</i>					
North Middlesex County Hospital ..	26	2	5	4	37†
Chase Farm Schools (hospital block) ..	—	—	—	2	2
Central Middlesex County Hospital ..	17	—	2	—	19
Redhill Institution	4	—	1	—	5
Hillingdon County Hospital	7	1	1	—	9
West Middlesex County Hospital ..	33	1	1	—	35

* All institutions belonging to the Authority which are being used for the treatment of tuberculosis are included. Any of them which have not been appropriated for Public Health purposes and are being administered by the Public Assistance Committee are shown separately under the title of "Poor Law Institutions."

"Number of beds available," means the total number of beds in the Institution used for the purpose, whether they are all occupied or not, and whether they are occupied by patients from the area of the Authority, or are leased to or used by other Authorities.

† In addition there are 20 balcony beds available in good weather only.

TABLE D—(a).

Return showing the extent of Residential Treatment and Observation during the year in Institutions (other than Poor Law Institutions) approved for the treatment of Tuberculosis.

	In Institu- tions on Jan. 1st.	Admitted during the year.	Discharged during the year.	Died in the Insti- tutions.	In Institu- tions on Dec. 31st.
Number of doubtfully tuberculous cases admitted for observation—					
Adults—					
Males	1	44	44	—	1
Females	2	44	46	—	—
Children	7	83	83	—	7
Total	10	171	173	—	8
Number of definitely tuberculous patients admitted for treatment—					
Adults—					
Males	393	732	596	124	405
Females	296	624	513	90	317
Children	199	197	197	9	190
Total	888	1,553	1,306	223	912
GRAND TOTAL.. ..	898	1,724	1,479	223	920

TABLE D—(b).

	Total number of individual patients treated during the year 1932.	Number of admissions during the year.	Number of discharges during the year.
Patients admitted for not more than three nights for artificial pneumothorax refills—			
Adults—			
Males	—	—	—
Females	3	3	3
Children—Females	3	6	6
Total	6	9	9

TABLE E.

Return showing the Extent of Residential Treatment provided during the year in Poor Law Institutions for persons chargeable to the Council.

	In Institutions on Jan. 1st.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31st.
Number of patients suffering from pulmonary tuberculosis admitted for treatment—					
Adults—					
Males	25	344	217	122	30
Females	42	281	185	88	50
Children	1	14	8	3	4
Total	68	639	410	213	84
Number of patients suffering from non-pulmonary tuber- culosis admitted for treat- ment—					
Adults					
Males	4	52	38	13	5
Females	7	55	45	12	5
Children	6	112	78	34	6
Total	17	219	161	59	16
GRAND TOTAL	85	858	571	272	100

TABLE F.

Return showing the results of observation of doubtfully tuberculous cases discharged during the year from Institutions approved for the treatment of Tuberculosis.

Diagnosis on discharge from observation.	For Pulmonary Tuberculosis.						For Non-Pulmonary Tuberculosis.						TOTALS.		
	Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.			
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.			
Tuberculous	10	6	25	2	—	13	—	—	—	—	—	—	12	6	38
Non-tuberculous.. ..	30	39	28	—	—	12	—	—	2	—	—	1	30	39	43
Doubtful	2	1	2	—	—	—	—	—	—	—	—	—	2	1	2
TOTALS	42	46	55	2	—	25	—	—	2	—	—	1	44	46	83

TABLE H.—(a) PULMONARY TUBERCULOSIS.

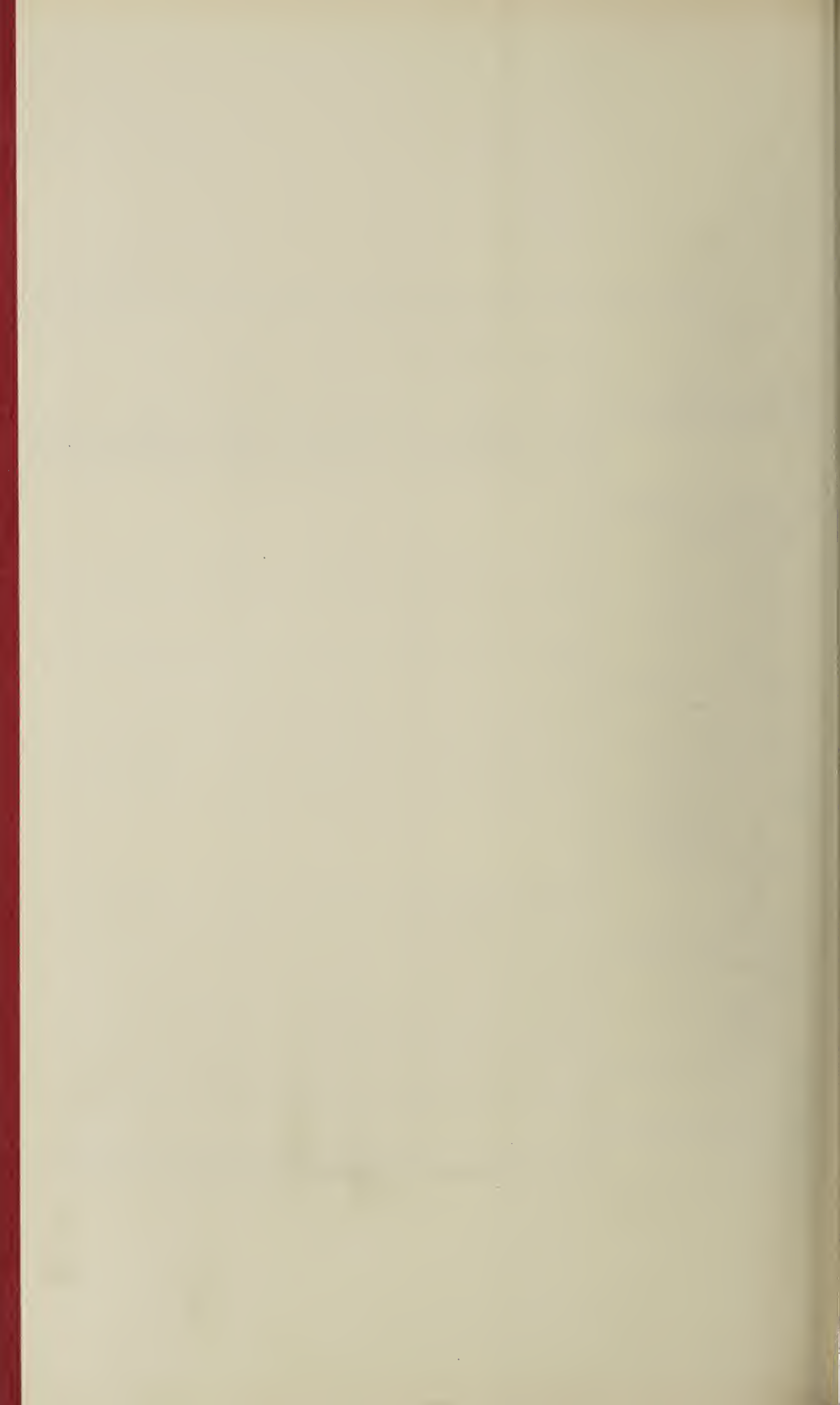
Annual Return showing in summary form (a) the condition at the end of 1932 of all patients remaining on the Dispensary Registers; and (b) the reasons for the removal of all cases written off the Registers. The Table is arranged according to the years in which the patients were first entered on the Dispensary Registers as definite cases of pulmonary tuberculosis, and their classification at that time.

Condition at the time of the last record made during the year to which the return relates.	Previous to 1926.					1926.					1927.					1928.					1929.					1930.					1931.					1932.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
(a) Remaining on Dispensary Registers on 31st Dec.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</

TABLE H (b).—NON-PULMONARY TUBERCULOSIS.

Annual Return showing in summary form (a) the condition at the end of 1932 of all patients remaining on the Dispensary Registers; and (b) the reasons for the removal of all cases written off the Registers.

Condition at the time of the last record made during the year to which the return relates.	Previous to 1926.					1926.					1927.					1928.					1929.					1930.					1931.					1932.				
	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
(a) Remaining on Dispensary Registers on 31st Dec.																																								
Disease Arrested—																																								
Adults—																																								
Males	5	1	1	2	9	1	—	1	—	2	6	—	1	1	8	6	—	2	—	8	2	1	3	—	6	3	2	3	—	8	4	3	1	1	9	—	—	1	—	1
Females	4	—	3	2	9	1	1	1	1	4	5	—	2	1	8	5	5	4	3	17	3	7	—	4	14	8	2	3	—	1	13	4	2	—	1	4	1	—	—	1
Children	24	3	3	9	39	9	1	—	5	15	12	9	1	11	33	17	7	1	14	39	11	5	2	15	33	9	10	2	22	43	3	5	1	14	23	1	—	—	1	2
Disease not Arrested—																																								
Adults—																																								
Males	11	—	3	—	14	1	—	—	—	1	2	—	2	—	4	5	1	—	—	6	5	1	4	1	11	19	2	2	3	26	17	2	6	2	27	19	7	13	7	46
Females	6	—	5	—	11	3	—	—	—	3	3	2	3	—	8	3	—	2	—	5	—	2	2	—	4	8	3	6	1	18	19	4	5	4	32	26	13	16	16	71
Children	18	—	5	2	25	5	1	—	2	8	9	1	1	3	14	9	—	2	1	12	32	1	1	1	35	34	2	1	10	47	33	7	6	28	74	37	14	3	33	87
Condition not ascertained during the year	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total on Dispensary Registers at 31st Dec.	68	4	20	15	107	20	3	2	8	33	37	12	10	16	75	45	13	11	18	87	53	17	12	21	103	81	21	16	37	155	77	23	19	50	169	84	34	33	57	208
Transferred to Pulmonary	4	1	2	4	11	3	—	—	1	4	—	1	2	2	5	1	—	—	3	4	2	—	1	1	4	2	—	—	2	4	—	—	—	—	—	—	—	—	—	—
(b) Not now on Dispensary Registers and reasons for removal therefrom.																																								
Discharged as Recovered—																																								
Adults—																																								
Males	60	11	16	17	104	5	2	2	—	9	6	1	4	—	11	1	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Females	29	14	6	18	67	8	3	2	3	16	3	—	1	2	6	7	1	1	1	10	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Children	142	46	29	116	333	10	5	3	13	31	7	8	3	9	27	4	2	—	12	18	5	2	—	6	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lost sight of, or otherwise removed from Dispensary Registers	200	38	56	80	374	47	16	14	34	111	36	15	13	16	80	33	4	6	19	62	40	19	8	22	89	32	16	9	17	74	18	3	11	18	50	8	1	6	5	20
Dead—																																								
Adults—																																								
Males	22	5	7	1	35	6	2	—	—	8	3	3	1	—	7	7	1	2	—	10	2	2	3	—	7	5	1	1	1	8	5	3	1	1	10	2	1	1	—	4
Females	15	4	3	1	23	4	1	—	—	5	5	1	—	—	6	5	1	1	—	7	4	2	1	—	7	—	2	1	—	3	1	—	1	1	3	2	2	—	1	5
Children	19	9	1	1	30	2	4	1	—	7	3	4	—	1	8	4	2	3	1	10	—	—	—	—	—	2	1	1	1	5	5	—	—	—	5	2	1	1	—	4
Total written off Dispensary Registers	487	127	118	234	966	82	33	22	50	187	63	32	22	28	145	61	11	13	33	118	52	25	12	30	119	39	20	12	19	90	29	6	13	20	68	14	5	8	6	33
GRAND TOTALS of (a) and (b) (excluding those transferred to Pulmonary)	555	131	138	249	1,073	102	36	24	58	220	100	44	32	44	220	106	24	24	51	205	105	42	24	51	222	120	41	28	56	245	106	29	32	70	237	98	39	41	63	241



In the first column of Table H (a) facing page 80 are grouped those persons who first came under public medical treatment previous to 1926. By the end of 1932, therefore, every member of this group then living had been under observation for at least seven years, and the majority for considerably longer periods. The total number of pulmonary cases in the group under consideration is 5,485, but of these a large number, 1,540, have been lost sight of, either on account of their having left the County, or because they have signified they no longer desire public medical treatment, or for a variety of other reasons. Deducting this number, there remains a balance of 3,945 patients, the condition of whom was known at the end of 1932.

These may be analysed as follows :—

PULMONARY TUBERCULOSIS. Class.	Total number for whom record is available.	Discharged as Recovered.		Disease arrested.		Dead.		Disease not arrested.	
		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
T.B. minus . .	1,573	1,159	74	171	11	207	13	36	2
T.B. plus, Gp. I	800	264	33	99	12	340	43	97	12
T.B. plus, Gp. II	876	81	9	53	6	609	70	133	15
T.B. plus, Gp. III	696	14	2	3	0·4	661	95	18	2·6
All Classes . .	3,945	1,518	39	326	8	1,817	46	284	7

VENEREAL DISEASES.

Details of the County Council's Scheme for the treatment of venereal diseases were contained in the "survey" annual report for 1930.

The extent to which Middlesex patients have utilised the individual hospitals included in the scheme is shown in the table on page 86, and a comparative statement of the work carried out during the past five years is given in that on page 87. These tables relate only to Middlesex residents, although in the case of the Prince of Wales's Hospital, Tottenham, the County Council has borne the expense of the treatment of 63 new patients not resident in the County.

The total number of Middlesex new patients dealt with during the year was 2,889, an increase of 240 on the total for 1931. Of these cases, 545 were suffering from syphilis (an increase of 46), 15 from soft chancre (an increase of 8), 1,124 from gonorrhœa (an increase of 154), whilst 1,205 (an increase of 32) were found not to be suffering from venereal disease. The attendances of Middlesex patients totalled 76,720 (an increase of 8,265), and the number of in-patient days of treatment was 3,093 (a decrease of 700).

The extent of the work carried out under the joint scheme may be judged from the fact that the total number of new cases from all areas dealt with at the London hospitals during 1932 was 27,952 (an increase of 2,005), of which 4,941 (an increase of 411) were suffering from syphilis, 11,222 (an increase of 1,249) gonorrhœa, 187 (a decrease of 151) soft chancre, while 11,602 (an increase of 496) were found to be not suffering from venereal disease. The attendances totalled 983,921 (an increase of 53,573), and the number of in-patient days of treatment was 54,023 (a decrease of 2,518).

The hospitals where the largest increase in total attendances of Middlesex patients occurred were :—

West London, increased by 4,997.

St. Thomas's, increased by 1,816.

Middlesex, increased by 1,622.

St. Mary's, increased by 1,041.

St. George's, increased by 855.

University College, increased by 788.

Advantage has been taken of the useful facilities provided by the inclusion within the scheme of hostels for young women. Sixteen Middlesex women (a decrease of 7) in an infective condition were accommodated during their pregnancies, and occupied beds for an aggregate of 2,022 days (a decrease of 718) or 7·7 per cent. of the total of all participating authorities.

The number of doctors practising in Middlesex who applied during 1932 to be placed on the approved list, enabling them to receive free supplies of arsenobenzene compounds, was seven. The total number now is 87. In addition to these there is a considerable number of doctors in London, by many of whom Middlesex residents would be treated, who also are on the list of approved practitioners.

STATEMENT OF WORK DONE BY INDIVIDUAL HOSPITALS IN CONNECTION WITH MIDDLESEX PATIENTS DURING 1932.

Hospital.	NEW CASES.					Total attendances.	No. of in-patient days.	Arsenobenzene compounds. Doses given.
	Syphilis.	Soft Chancre.	Gonorrhœa.	Conditions other than venereal.	Total.			
Gt. Ormond Street ..	10	—	5	107	122	667	334	138
Guy's	8	—	18	28	54	1,173	22	122
King's College	1	—	—	1	2	54	7	13
L.C.C. Clinic, White-chapel	1	—	13	21	35	1,328	—	43
Metropolitan	2	—	2	5	9	832	—	79
Middlesex	25	—	60	16	101	5,216	170	213
Royal Free	19	—	46	115	180	2,423	526	239
†Royal London Ophthalmic	4	—	—	—	4	119	12	46
Royal Northern	75	4	180	119	378	10,480	25	1,035
St. George's	20	2	54	20	96	1,733	10	205
St. Mary's	60	3	129	43	235	4,218	27	602
St. Paul's	26	2	79	89	196	5,897	115	484
St. Thomas's	44	2	91	167	304	6,426	166	307
Seamen's	—	—	—	—	—	—	—	—
University College	38	—	49	10	97	3,856	4	376
West London	102	—	270	345	717	23,829	667	2,152
Westminster	4	—	9	3	16	916	21	37
Salvation Army Mothers Children's, Waddon ..	1	—	25	10	36	593	555	—
	—	—	2	—	2	—	117	—
Joint London Hospitals, Totals.. }	440	13	1,032	1,099	2,584	69,760	2,778	6,091
*Prince of Wales's, Tottenham	105	2	92	106	305	6,960	315	818
GRAND TOTAL ..	545	15	1,124	1,205	2,889	76,720	3,093	6,909

* These figures do not include 63 new cases not residents of the County but treated at the hospital, the cost being borne by the Middlesex County Council under agreement with the hospital.

† The Royal London Ophthalmic Hospital ceased to be included in the scheme after 31st March, 1932.

MIDDLESEX Patients treated at

	London Hospitals.					Prince of Wales's Hospital, Tottenham.*					
	1928.	1929.	1930.	1931.	1932.	1928.	1929.	1930.	1931.	1932.	
Number of persons dealt with at the Clinics for the first time and found to be suffering from :—											
	Syphilis	382	380	413	412	440	59	62	79	87	105
	Soft chancre	11	1	5	5	13	2	2	—	2	2
	Gonorrhoea	874	1,010	943	881	1,032	95	99	98	89	92
	Conditions other than venereal	814	661	961	1,079	1,099	86	113	102	94	106
	Totals	2,081	2,052	2,322	2,377	2,584	242	276	279	272	305
Total attendances	49,658	51,877	59,168	62,044	69,760	4,937	5,068	6,085	6,411	6,960	
Number of “in-patient” days of treatment											
		2,192	2,154	2,588	3,618	2,778	172	100	42	175	315
Number of doses of arsenobenzene compounds given	4,402	3,881	4,479	5,565	6,091	450	437	598	613	818	

* These figures do not include patients not residents of the County, but treated at the hospital, the cost being borne by the Middlesex County Council under the agreement with the hospital.

APPENDICES.

I.—Annual Report by Dr. H. M. C. Macaulay, Acting Medical Superintendent of North Middlesex County Hospital.

II.—Annual Report by Dr. J. N. Deacon, Medical Superintendent of Redhill County Hospital.

III.—Annual Report by Dr. W. E. Turner, Medical Superintendent of Central Middlesex County Hospital.

IV.—Annual Report by Dr. J. B. Cook, Medical Superintendent of West Middlesex County Hospital.

V.—Annual Report by Dr. R. Rutherford, Medical Superintendent of Hillingdon County Hospital.

APPENDIX I.

ANNUAL REPORT ON THE WORK OF THE NORTH MIDDLESEX COUNTY HOSPITAL
DURING 1932, PREPARED BY THE ACTING MEDICAL SUPERINTENDENT.

The Hospital suffered a grievous loss by the sudden death, on 21st November, 1932, of Lieut.-Col. Spencer Mort, M.D., Ch.M., F.R.C.S., F.R.S.(Ed.), who had been Medical Superintendent of the Hospital since its opening in 1910.

By his ability, energy and enthusiasm for his work, Dr. Mort had been very largely responsible for the development of the North Middlesex County Hospital from a small beginning to the place it now occupies among the great general hospitals of this country.

In addition to his administrative duties, Dr. Mort of recent years had devoted a great amount of time to the study of radium therapy in which subject he had achieved an international reputation. Up to the time of his death he was in charge of the radium department, which he had organised and built up at the North Middlesex County Hospital, and personally undertook the treatment of patients in that department.

In order to deal with the situation created by Dr. Mort's death, the Public Health and Public Assistance Committee instructed Mr. H. M. C. Macaulay, M.D., B.S., B.Sc., D.P.H., the Deputy County Medical Officer, to undertake forthwith the duties of acting medical superintendent, and at the close of the year the question of the appointment of a permanent medical superintendent was engaging the attention of the County Council.

The position with regard to the radium department was a matter of some difficulty, as, at the time of Dr. Mort's death, a number of patients were in process of undergoing courses of treatment. The kindness and public-spirited action of the Middlesex Hospital, London, who at once placed at the disposal of the County Council the part-time services of one of their radium-therapists, Mr. B. W. Windeyer, F.R.C.S., enabled this important work to proceed with practically no interruption.

Another serious loss which was sustained by the Hospital was the retirement, on 1st December, 1932, of Miss A. Dowbiggin, M.B.E., R.R.C., who had been Matron of the Hospital since its opening in 1910. Much of the success which the North Middlesex County Hospital has achieved in past years must be attributed to Miss Dowbiggin's influence, and particularly is this the case with regard to the training school for nurses, which she did no much to create and develop.

On Miss Dowbiggin's retirement, Miss E. R. Wheeldon, 1st Assistant Matron, was appointed acting Matron, and at the close of the year was occupying this position.

MATERNITY DEPARTMENT.

The work of the maternity department has grown to very considerable proportions during the past few years. Ante-natal sessions are held in a part of the out-patient department twice weekly and during 1932 the average number of women attending each session numbered 63. The number of deliveries which took place in the maternity wards during the year was 1,239.

The maternity ward-block cannot be regarded as a satisfactory building for maternity work. It was not originally erected for the purpose and the work which the maternity staff is accomplishing has very often to be carried on in the face of considerable difficulty. The committee of management of the hospital are fully alive to the position, but, in view of the national economic situation, have felt constrained to defer the task of complete rebuilding of the department which is desirable. In order, however, to obviate so far as possible some of the more serious structural defects and inconveniences, a number of improvements to the building were approved and put in hand during 1932. These alterations, which provide for the construction of a reception unit, an additional labour ward, more satisfactory nursery accommodation and facilities for bathing babies, should go some way towards making the ward-block less unsatisfactory. There can be little doubt, however, that before very long an entirely new building, designed in accordance with modern maternity hospital construction, will need to be erected.

OUT-PATIENT DEPARTMENT.

The out-patient department is intended to deal with the following classes of cases :—

- (1) Patients who have been discharged from the wards of the hospital, but who need continued observation or treatment.
- (2) Patients referred by medical practitioners in the neighbourhood for a consultant's opinion.
- (3) Patients in need of specialised forms of treatment not ordinarily provided by a general practitioner (*eg.*, x-ray, electro-, actino- or radio-therapy, ophthalmic treatment, minor surgical procedures, dental treatment, &c.).
- (4) Casualties.
- (5) Ante-natal cases.

The out-patient department was initiated soon after the close of the Great War and up to the present time has been housed in a temporary structure used as a 100-bedded ward during the military

occupation of the hospital. This building, whilst fulfilling a great need and serving satisfactorily enough during the years the department was growing, is inconvenient and inadequate to deal efficiently with the volume of work which the department now is properly called upon to undertake. During the year 1932 the number of attendances by out-patients to the various special departments exceeded 60,000.

The existing out-patient accommodation is congested and the building by reason of its construction and adaptation is noisy and not well lighted, rendering accurate observation and diagnosis very difficult. The building, moreover, is situated somewhat remotely from the male and female admission rooms, with the result that a certain amount of wasteful duplication of staff is involved in dealing with admissions in one place and out-patients and casualties in another. It is eminently desirable that facilities for handling admissions, casualties and out-patients should be concentrated into one suitably planned building. Such a course, if adopted at the North Middlesex County Hospital, should lead to a saving in personnel and would add to the efficiency of the hospital and to the comfort and convenience of both patients and staff.

ACADEMIC ACTIVITIES OF THE HOSPITAL.

The course of lectures and clinical demonstrations to post-graduates given in conjunction with the Prince of Wales's Hospital was again held during 1932, and was well attended.

Dr. A. W. Gregorson, Deputy Medical Superintendent, was again appointed as examiner at the Final Examination for admission to the State Register of Nurses.

Dr. J. A. Bruce Young, Assistant Medical Officer, was admitted to the Membership of the Royal College of Physicians of London, and Mr. L. W. Willway, Junior Assistant Medical Officer, to the Fellowship of the Royal College of Surgeons of England.

NURSES' TRAINING SCHOOL.

(1) *State Examinations*.—At the three examinations held during the year, 20 nurses out of a total entry of 30 were successful in passing the final examination for admission to the State Register. At the preliminary examination, 13 nurses passed out of a total entry of 19.

(2) *Central Midwives Board*.—Thirty-two nurses obtained the certificate of the Central Midwives Board (40 entries).

(3) *County Nurses' Examinations*.—At the County Nurses' Examination open to nurses trained in all the County Council's general hospitals, 23 nurses passed out of an entry of 27. Of this number, 2 candidates obtained honours (1 gaining a County silver medal), and 6 were awarded marks of credit.

Staff.

(as on 31st December, 1932).

WHOLE-TIME MEDICAL STAFF.

Medical Superintendent—
*Office vacant.**

Deputy Medical Superintendent—
A. W. Gregorson, M.D., Ch.B., F.R.F.P.S.

Surgeon—
R. L. Galloway, M.B., Ch.B., F.R.C.S.(Edin.).

Assistant Medical Officers—

K. A. K. Hudson, M.B., Ch.M.	J. A. Bruce Young, M.D., Ch.B., M.R.C.P.
H. O. Blauvelt, M.D., C.M., F.R.C.S.(Eng.).	P. J. Nagle, M.B., B.Ch., B.A.O.
A. R. K. Burne, M.B., Ch.M., F.R.C.S.(Edin.).	Elisabeth A. Pennycuik, M.B., Ch.B.

Two vacancies.

Junior Assistant Medical Officers—

F. W. Willway, B.Sc., M.B., B.S., F.R.C.S.(Eng.). E. B. Jackson, M.B., B.S.

VISITING MEDICAL STAFF.

Laryngologists—
L. G. Brown, M.C., M.A., M.D., F.R.C.S.(Eng.). F. D. Cairns, M.B., Ch.B., F.R.C.S.(Edin.).

Ophthalmic Surgeon—
Frida Ramsay, M.D., B.S., D.P.H., D.O.M.S.

Electrotherapist—
P. Figdor Ashton, M.B., Ch.B.

* Lieut.-Col. Spencer Mort, M.D., Ch.M., F.R.C.S., F.R.S. (Edin.), the late Medical Superintendent, died on 21st November, 1932.

Radiologists—

E. E. Holdsworth, M.B., Ch.B., D.M.R.E. N. P. Henderson, M.D., Ch.B., D.M.R.E.

Pathologist—

T. H. C. Benians, F.R.C.S.(Eng.).

Anæsthetists—

F. P. de Caux, L.R.C.P., M.R.C.S. J. H. T. Challis, L.R.C.P., M.R.C.S.

Dental Surgeon—

G. E. Royston, L.D.S.

NURSING STAFF.

Resident—

Matron.

Office vacant.†

Administrative Sisters	7	Staff Nurse Pupil-midwives ..	36
Ward and Departmental Sisters ..	33	Probationers	107
Staff Nurses	5	Pupil-midwives	2
			195
Non-resident			
Masseuses	8	Male Mental Nurses	13
Female Mental Nurses	19	Assistant Nurses	8
			53
			248

Wards of the Hospital and Classification of Beds.

So far as accommodation for in-patients is concerned, the North Middlesex County Hospital consists of (i) a main building ; (ii) an annexe ; (iii) certain separate ward blocks, attached to, or in the grounds of, the adjoining institution, Edmonton House. These blocks, although geographically a part of the institution, have, in years past, been appropriated, with the approval of the Ministry of Health, for hospital purposes and now are administered and staffed as an integral part of the hospital.

(i) *The main building.*—The wards in the main building are contained in two three-storeyed blocks, one for males and one for females, separated from one another by the length of the main corridor of the hospital, from which open the operating theatres, x-ray department, dispensary, and administrative offices. The main corridor runs nearly north and south, and the ward blocks, being at right angles to this axis, run east and west. On each floor of a ward block there are two large wards (each with side wards), making in all a total of twelve large wards, six for males and six for females and infants. The wards are named as follows :—

	Male.	Female.
Ground floor	Edward East. Edward West.	Alexandra East. Alexandra West.
First floor	Elia East. Elia West.	Eleanor East. Eleanor West.
Second floor	Coleridge East. Coleridge West.	Nightingale East. Nightingale West.

Communicating by a covered way with the southern end of the main corridor is a one-storeyed building of temporary construction known as Mary East and Mary West wards.

(ii) *The annexe* is an entirely separate three-storeyed building, which faces the main hospital and is distant from it some 50 yards. It contains two wards (with side wards) on each floor, or six main wards in all, three for males and three for females. The wards are named as follows :—

	Male.	Female.
Ground floor	Hope.	John.
First floor	Truth.	Luke.
Second floor	Faith.	Mark.

The annexe is intended for the reception of patients suffering from chronic disorders. The wards on the first floor have been specially wired to enable radiant heat baths to be given to patients in their beds ; and patients suffering from various forms of articular rheumatism and allied conditions are treated by this means in these wards under the supervision of the visiting physician in charge of physico-therapeutics. The main wards on the top floor are used for the reception of

† Miss A. Dowbiggin, M.B.E., R.R.C., retired and left the service of the County Council on 1st December, 1932.

advanced cases of open tuberculosis, whilst the side wards serve for the isolation of contagious skin conditions or of children suffering from infectious diseases.

Both in the main hospital and in the annexe there are a number of balcony beds, which are available only during the summer months.

(iii) *Separate ward blocks.*—These, which lie beyond the annexe and at some considerable distance from the main building, consist of :—

(a) *The maternity department.*—A two-storeyed self-contained building, providing 59 beds and 54 cots, labour wards, nurseries, &c.

(b) *The mental wards.*—Cowper Ward, 19 beds, with a padded room, for male mental cases and Victoria Ward, 21 beds, with a padded room, for female mental cases.

(c) *Keats Ward.*—This is situated above Cowper Ward and provides 30 beds for the reception of male cases whose physical condition or habits make it desirable that they should be nursed by male attendants.

The accommodation of the entire hospital at the close of 1932 may be classified as follows :—

Class of case treated.	Name of ward.	Beds.			
		Male.	Female.	Children (0-5).	Additional balcony beds (available only in summer).
Medical	Elia W. .. .	35	—	—	—
„	Eleanor W. .. .	—	35	—	—
Surgical—					
General	Edward W. .. .	35	—	—	—
„	Alexandra W. .. .	—	34	—	—
Fractures	Coleridge W. .. .	35	—	—	—
„	Nightingale W. . .	—	35	—	—
Genito-urinary	Elia E. .. .	35	—	—	10
Gynaecological	Eleanor E. .. .	—	35	—	10
General medical and surgical—					
Adults	Coleridge E. .. .	35	—	—	10
„	Nightingale E. .. .	—	35	—	10
Infants (0-5)	Alexandra E. .. .	—	—	40	—
Boys (5-16)	Edward E. .. .	35	—	—	10
Chronic—					
Carcinoma	John .. .	—	32	—	2
„	Hope .. .	32	—	—	2
Rheumatism	Luke .. .	—	30	—	2
„	Truth .. .	30	—	—	2
Tuberculosis	Mark .. .	—	28	2	4
„	Faith .. .	24	—	5	4
Senile dementia	Mary E. .. .	—	65	—	—
Senility	Mary W. .. .	—	73	—	—
	Keats .. .	30	—	—	—
Maternity	—	—	59	54	—
Mental	Cowper .. .	19	—	—	—
„	Victoria .. .	—	21	—	—
Totals		345	482	101	66
Sick nurses (side wards, first floor of annexe)		—	11	—	—
Grand Totals		345	493	101	66

In a hospital of this character it is not possible to adopt a very rigid system of classification of beds. Admission cannot be refused to the sick poor, and, accordingly, in times of pressure it may be necessary to erect additional beds, to the overcrowding of the wards, and to admit patients to wards primarily intended to deal with cases of a different type.

Some re-arrangement of use of the wards of the hospital is desirable to make for greater efficiency.

Statistical Tables for the Year ended 31st December, 1932.

Information regarding the work of the hospital during 1932 is afforded by the statistical tables which follow and the annotations thereto. Sections I to VII give general information as to admissions, discharges and conditions treated; section VIII deals in greater detail with the work of the special departments.

Remaining in hospital, 1st January, 1932	..	..	880
Admitted during the year	..	..	10,060
Born in hospital	..	..	1,185
			<hr/> 12,125
Discharged	..	..	9,713
Died	..	..	1,535
Patients treated to a conclusion during the year	..		<hr/> 11,248
Remaining in hospital on the 31st December, 1932	..		<hr/> 877

Classification of Patients treated to a conclusion.

Males	..	..	..	..	..	..	..	..	3,340
Females	..	..	..	..	..	..	..	..	5,117
Children (0-16)	..	..	..	..	..	..	..	..	2,791
									<hr/> 11,248

Children under 16 years of age constituted 25 per cent. of all patients treated.

I.—TABLE SHOWING HOW THE 11,248 PATIENTS TREATED TO A CONCLUSION DURING THE YEAR WERE ORIGINALLY ADMITTED.

By order of Clerk, County Medical Officer, or Director of Public Assistance	..	..	..	..	..	..	..	14
By Relieving Officers' orders	..	..	..	..	..	..	..	4,708
By Medical Superintendent—								
Births	..	..	..	..	..	..	..	1,193
Police cases (other than accidents)	..	..	..	..	..	..	..	64
Urgent cases	..	..	..	..	..	..	..	5,072
Transfers from Middlesex County Council institutions, homes or hospitals	..	..	..	..	..	..	..	132
Transfers from other authorities, hospitals or institutions	..	..	..	..	..	..	..	18
By agreement with another authority..	..	..	..	..	..	..	..	47
								<hr/> 11,248

II.—TABLE SHOWING THE DISTRICTS TO WHICH THE 11,248 PATIENTS TREATED BELONGED.

Edmonton	..	..	..	..	..	..	..	2,942
Tottenham	..	..	..	..	..	..	..	3,210
Enfield	..	..	..	..	..	..	..	1,709
Southgate	..	..	..	..	..	..	..	733
Wood Green	..	..	..	..	..	..	..	1,008
Hornsey	..	..	..	..	..	..	..	1,037
Finchley	..	..	..	..	..	..	..	60
Other districts of Middlesex	..	..	..	..	..	..	..	97
Essex	..	..	..	..	..	..	..	154
Hertfordshire	..	..	..	..	..	..	..	298
								<hr/> 11,248

The allotment of an accident case to any one of the preceding districts is as follows:—

1. A person admitted, who is normally resident within the County, is allocated to the district of residence, irrespective of the district in which the accident occurs.
2. A person admitted, not being normally resident within the County, is allocated to the district in which the accident actually occurs.

III.—TABLE SHOWING THE RESULTS OF TREATMENT OR THE TERMINATION.

Relieved	8,895	79	per cent.
Unrelieved	818	7.3	„
Died	1,535	13.7	„
	11,248	100.0	„

Deaths.

Ages.	Male.	Female.	Total.
Under 1 year	63	40	103
1- 2 years	9	9	18
2- 5 years	10	13	23
5-15 years	22	20	42
15-25 years	44	34	78
25-35 years	34	31	65
35-45 years	42	49	91
45-55 years	89	67	156
55-65 years	137	94	231
65-75 years	184	158	342
Over 75 years	173	213	386
	807	728	1,535

Deaths within 24 hours of admission	227 (14.8 per cent.).
„ 24 to 48 „ after „ .. .	79 (5.1 „).
„ 48 to 72 „ „ „ .. .	72 (4.7 „).
	378
All other deaths	1,157 (75.4 „).
Total	1,535

The 227 deaths which occurred within 24 hours of admission may be classified as follows :—

Injuries	38
Terminal stage :—	
Acute diseases	76
Chronic diseases	76
Other deaths within 24 hours	37
	227

IV.—TABLE SHOWING THE MANNER OF DISCHARGE OF PATIENTS.

Discharged in normal manner	10,920
Discharged at own request, against Medical Superintendent's advice	328
	11,248

V.—TABLE SHOWING WHITHER THE 11,248 PATIENTS WERE DISCHARGED.

Home	7,728
To Middlesex County Council's institution or home.. ..	321
To out-patient department	1,076
To convalescent home	161
To Middlesex County Council's general hospital	30
To other authorities' hospital or institution	43
To infectious diseases hospital	23
To mental hospital	306
To sanatorium	25
Died	1,535
	<hr/>
	11,248
	<hr/>

VI.—AVERAGES FOR THE YEAR.

Beds, average daily number occupied.. .. .	862
Patients per occupied bed, average number	13
Nursing staff, average daily strength	246*
Occupied beds per nurse, average number	3.5
Admissions, average daily number	30.7
Stay, average length in days per patient	28

Maximum number of beds occupied = 929 on the 10th May.

Minimum number of beds occupied = 782 on the 23rd February.

* Including administrative nursing staff and nurses employed in special departments.

VII.—CLASSIFICATION OF THE DISEASES AND CONDITIONS FOR WHICH THE 11,248 PATIENTS WERE PRIMARILY TREATED.

Disease or Condition.	Males.			Females.			Children (0-16).			Total.
	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	
Births	—	—	—	—	—	—	1,146	—	46	1,192
Infants with mothers	—	—	—	—	—	—	2	—	—	2
No disease	—	28	—	—	18	—	—	27	—	73
Diseases caused by infection—										
Diphtheria, erysipelas, scarlet fever, cerebro-spinal fever	—	5	—	—	1	—	—	13	—	19
Measles, varicella, pertussis	5	—	—	—	—	—	9	—	1	15
Actinomycosis, septicæmia, pyæmia, tetanus	1	—	—	—	—	3	—	—	3	8
Typhoid fever, dysentery, malaria	2	2	1	—	1	—	—	1	—	7
Influenza, influenzal pneumonia	34	—	7	38	—	4	16	—	—	99
Tuberculosis—pulmonary	57	7	32	47	7	27	4	—	—	181
" non-pulmonary	14	—	5	13	—	4	29	1	15	81
Rheumatism, chorea	51	—	1	104	—	4	52	—	—	212
Venereal disease	1	1	2	1	—	—	—	—	—	5
Diseases of the—										
Nervous system	86	30	75	122	35	51	32	2	11	444
Eye	13	—	—	15	—	—	15	—	—	43
Ear	25	—	—	28	—	2	134	—	2	191
Nose and accessory sinuses	25	—	1	33	1	—	17	—	—	77
Circulatory system—										
Heart	63	5	170	93	11	197	10	—	4	553
Blood-vessels	38	8	34	50	1	25	—	—	—	156
Blood and spleen	3	—	6	19	1	—	5	—	—	34
Lymphatic system	27	—	1	16	—	2	69	—	1	116
Endocrine glands	1	—	1	9	—	1	—	—	—	12
Breast	1	—	—	21	—	—	—	—	—	22
Respiratory system—										
Laryngitis	1	—	—	6	—	—	3	—	—	10
Bronchitis, acute	17	—	3	29	—	5	64	—	—	118
" chronic	71	1	21	44	3	13	2	—	1	156
Bronchiectasis, bronchiolitis, asthma	5	—	—	13	—	—	11	—	1	30
Lobar pneumonia	27	—	13	15	—	7	21	—	3	86
Broncho-pneumonia	30	—	59	24	—	35	125	—	40	313
Lung, oedema, abscess, infarction, fibrosis, emphysema	8	—	5	11	—	1	5	—	5	35
Pleurisy and empyema	72	—	6	19	—	1	17	—	2	117

Digestive system—										14	14	—	1	14	—	—	—	43
Teeth and gums										4	—	—	—	5	—	2	12	
Lip, mouth, tongue, palate										54	68	—	—	72	—	—	194	
Tonsils										1	1	—	1	3	—	—	6	
Naso-pharynx and pharynx										46	33	—	1	—	—	—	84	
Gastric ulcer (simple) .. .										3	2	—	1	—	—	—	10	
Perforated gastric ulcer										55	9	—	—	—	—	—	66	
Duodenal ulcer (simple).. .										10	2	—	—	—	—	—	19	
Perforated duodenal ulcer										21	21	—	—	1	—	1	44	
Stomach and duodenum—other conditions										23	23	—	5	5	—	4	71	
Intestinal obstruction .. .										210	228	—	5	111	—	5	572	
Appendicitis										109	37	1	1	28	1	2	180	
Herniæ (not strangulated)										40	16	—	3	1	—	—	64	
Herniæ, strangulated .. .										99	112	5	1	75	—	10	315	
Intestines, rectum and anus—other conditions										25	68	5	13	1	—	—	122	
Pancreas, liver, gall-bladder										10	22	—	2	2	—	2	40	
Peritoneum										9	8	—	—	12	—	—	30	
Miscellaneous										16	16	—	8	35	—	8	87	
Diseases due to disorders of nutrition or of metabolism .. .										56	266	5	—	21	—	—	370	
Diseases of the generative system										—	1,556	111	14	—	—	—	1,681	
Normal and abnormal pregnancy, parturition and puerperium										36	15	—	—	27	—	4	82	
Diseases of the—										105	84	—	6	82	—	4	289	
Organs of locomotion										98	79	—	32	26	—	3	265	
Areolar tissue and skin										32	9	—	—	2	—	—	43	
Urinary organs										11	11	—	1	28	—	1	52	
Injuries										224	133	1	17	90	—	3	502	
Concussion and shock										203	109	—	4	111	—	—	431	
Burns and scalds										13	93	2	5	2	—	—	120	
Fractures and dislocations.. .										56	79	36	91	—	—	—	378	
Other injuries										—	—	—	—	1	—	2	3	
Tumours and cysts—										7	8	—	2	3	—	—	21	
Benign										2	1	—	—	4	—	—	7	
Malignant										90	89	243	50	2	8	—	638	
Malformations										2,360	3,983	488	646	2,552	53	186	11,248	
Poisonings										277	703	277	277	277	277	277	277	
Diseases due to parasites										3,340	5,117	3,340	3,340	3,340	3,340	3,340	3,340	
Mental diseases										2,360	3,983	488	646	2,552	53	186	11,248	
Totals										2,360	3,983	488	646	2,552	53	186	11,248	
Grand totals										2,360	3,983	488	646	2,552	53	186	11,248	

Diseases and conditions treated to a conclusion.
(Groups arranged in order of frequency.)

	<i>Treated.</i>	<i>Died.</i>
Diseases of the digestive system	1,872	118
Pregnancy, parturition, puerperium	1,681	14
Births	1,192	46
Injuries	1,028	63
Diseases of the respiratory system	865	221
Diseases of the circulatory system	709	402
Mental diseases	638	62
Diseases caused by infection	627	109
Tumours and cysts	498	190
Diseases of the nervous system	444	137
Diseases of the generative system	370	19
Diseases of areolar tissue and skin	289	18
Diseases of the urinary organs	265	62
Diseases of blood, spleen and lymphatic system ..	150	10
Other 13 groups	620	64
	<hr/>	<hr/>
	11,248	1,535
	<hr/>	<hr/>

VIII.—THE WORK OF THE SPECIAL DEPARTMENTS.

The following tables and notes relate to the work of the special departments of the hospital :—

- 1. Department of Surgery.
- 2. Department of Anæsthetics.
- 3. Department of Diseases of Ear, Nose and Throat.
- 4. Department of Radiology.
- 5. Radium Department.
- 6. Department of Ophthalmology.
- 7. Dental Department.
- 8. Department of Actino-therapy.
- 9. Department of Electro-therapy and Massage.
- 10. Maternity Department.
- 11. Department of Pathology.

1. Department of Surgery.

ANALYSIS OF OPERATIONS PERFORMED DURING THE YEAR.

Operations.	In-Patients.		Out-Patients.	Totals.
	Major.	Minor.	Minor.	
On skin and superficial structures	26	395	93	514
On arteries, veins and lymphatics	—	2	12	14
On nerves	—	5	—	5
On bones and joints	105	379	71	555
On muscles, tendons, bursæ and fasciæ	24	4	4	32
Amputations	13	16	—	29
On skull, brain and spine	6	—	—	6
On face	10	—	—	10
On eye	20	—	8	28
On mouth, pharynx and œsophagus	24	24	—	48
On ear, nose and throat	228	22	1,421	1,671
On thyroid, accessory glands and neck	21	1	10	32
On breast	21	—	3	24
On thorax and contents	45	14	—	59
On abdominal wall and cavity	369	—	—	369
On stomach and duodenum	95	—	—	95
On intestine, rectum and anus	595	75	—	670
On liver, gall bladder, pancreas and spleen	52	—	—	52
On kidney and urinary tract	116	108	106	330
On male generative organs	43	67	89	199
Obstetric	43	308	93	444
On female generative organs	606	26	—	632
Unclassified	—	4	—	4
Grand Totals	2,462	1,450	1,910	5,822
	3,912			

Operations :—									
Major	..	..	..	..	..	..	..	..	2,462
Minor	..	..	..	..	..	..	..	..	3,360

Of the above number, 765 operations were performed as emergencies at night, *i.e.*, between the hours of 8.0 p.m. and 8.0 a.m. Of these, 520 were classified as major operations and 245 as minor operations.

Abdominal section was performed 1,092 times.

The following notes and figures bearing upon the above table give information as to the numbers of operations most commonly performed at the hospital during the year.

On Skin and Superficial Structures (514).

This includes *débridement* of wounds, incision and drainage of abscesses, skin grafts, &c.

Orthopædic Operations, (On Bones and Joints (555), Muscles, Tendons, Bursæ and Fasciæ (32).)

A large proportion of this group consists of operations for the reduction of fractures and dislocations, including the manipulation of fragments, under general or local anæsthetics ; open operations for fixation of fragments by plate, wire, peg or living bone graft ; transfixion by pin ; applications of plaster, &c. Included in the group also are operations for osteo-myelitis, plastic operations upon joints and operations of suturing, lengthening and transplanting of tendons.

On Abdominal Wall and Cavity (369). (Abdominal sections, 136.)

Herniorrhaphy for femoral hernia (21 strangulated)	37
Herniorrhaphy for inguinal hernia (28 strangulated)	162
Herniorrhaphy for umbilical, ventral and incisional herniæ (8 strangulated)	33
Laparotomy, exploratory	33
Laparotomy and drainage for peritonitis	37
Adhesiolysis	45

On Stomach and Duodenum (95).

Polya partial gastrectomy	9
Gastric resection	6
Gastro-enterostomy for various conditons	50
Suture of perforated gastric or duodenal ulcer	24

On Intestine, Rectum and Anus (670) and Biliary Passages (51) (abdominal sections, 574).

Appendicectomy without drainage	375
Appendicectomy with drainage	110
Drainage of appendix abscess without appendicectomy	18
Resection and/or anastomosis of small intestine or colon ..	14
Colostomy or cæcostomy	38
Cholecystectomy or cholecystostomy	49

On Kidney and Urinary Tract (330) (abdominal sections, 30).

Nephrectomy	12
Nephrotomy/pyelotomy/ureterotomy	14
Cystoscopy	128
Cystoscopy and ureteric catheterization	36
Cystostomy	40
Diathermy of vesical tumours	9

On Male Generative Organs (199).

Supra-pubic prostatectomy	26
Resection of prostate by diathermy	3
Orchidectomy/orchidopexy	6
Circumcision	96

On Female Generative Organs (632) (abdominal sections, 206).

Pan-hysterectomy	4
Total hysterectomy	6
Sub-total hysterectomy	32
Abdominal section for prolapsus uteri	5
„ „ retroversion	36
Oöphorectomy/salpingectomy/salpingo-oöphorectomy	64
Curettage for various conditions	303
Plastic operations on cervix and vagina	67
Radium insertions into cervix or corpus uteri	45

FRACTURES.

A large number of cases of fracture or dislocation are brought to the hospital every year ; many of these are the result of road accidents. The hospital is situated on the North Circular Road, with the Cambridge Arterial Road and several crowded main thoroughfares in the near vicinity. Two wards (each of 35 beds) are reserved for the treatment of fractures, and these are kept very fully occupied throughout the year. During the course of 1932 the number of cases of fracture or dislocation admitted to the wards was 505.

In January, 1932, a clinic was started with the object of dealing with fractures and dislocations in the out-patient department. The cases treated include casualties and patients discharged from hospital, as well as those referred by private practitioners and other hospitals.

357 cases of fracture or dislocation were seen during the year as well as many cases of injury subsequently found to be neither fracture nor dislocation. The total number of attendances made was 1,458, not including cases of injury not classified as fracture or dislocation.

By the use of the fracture clinic it is not infrequently possible to shorten the duration of in-patient treatment and at the same time exercise effective supervision and after-care following a patient's discharge from the ward ; the later results of in-patient treatment can be ascertained and noted, whilst in a number of instances the entire treatment of a case of fracture may be undertaken in the out-patient department without the necessity of admitting the case to the ward.

In the following table is set out an analysis and the results of treatment of fractures treated in the wards of the hospital during the year.

Fractures and Dislocations Treated to a Conclusion in the Wards of the Hospital during 1932.

Bone or Joint.	Male.	Female.	Simple.	Compound.	Result.*					Total.	
					(i).	(ii).	(iii).	(iv).	(v).		
<i>Fracture.</i>											
Skull base	18	3	4	17	6	—	—	—	15	21	
„ vault	13	11	8	16	20	2	—	—	2	24	
Mandible	2	2	—	4	1	—	3	—	—	4	
Nasal	3	3	—	6	4	2	—	—	—	6	
Vertebrae	7	—	7	—	3	1	—	1	2	7	
Ribs	10	8	18	—	13	—	3	—	2	18	
Scapula	3	—	3	—	1	—	2	—	—	3	
Clavicle	8	6	14	—	8	—	6	—	—	14	
Humerus	24	16	39	1	20	6	8	5	1	40	
Radius and ulna	18	3	17	4	19	1	1	—	—	21	
Ulna	3	2	5	—	5	—	—	—	—	5	
Radius (other than Colles')	5	4	9	—	7	1	—	1	—	9	
Colles'	4	6	10	—	7	—	2	1	—	10	
Scaphoid (Carpal)	—	1	1	—	1	—	—	—	—	1	
Metacarpal and phalanges	20	1	3	18	6	9	—	6	—	21	
Pelvis	10	3	13	—	6	4	—	2	1	13	
Femur	24	30	52	2	21	3	8	9	13	54	
Patella	6	5	11	—	5	1	5	—	—	11	
Tibia and fibula	40	22	53	9	39	17	2	2	2	62	
Fibula (other than Potts')	4	3	7	—	7	—	—	—	—	7	
Tibia	13	4	17	—	14	1	—	2	—	17	
Potts'	19	13	31	1	27	1	—	4	—	32	
Calcis	5	1	6	—	5	1	—	—	—	6	
Metatarsal and phalanges	4	1	5	—	5	—	—	—	—	5	
Multiple	32	19	33	18	23	—	7	7	14	51	
Old (removal of plates, &c.)	12	14	14	2	10	1	—	5	—	16	
Malunited	4	3	6	1	1	1	2	3	—	7	
Totals	301	184	386	99	284	52	49	48	52	485	
<i>Dislocation.</i>											
Metacarpal	1	1	2	—	1	1	—	—	—	2	
Elbow	2	1	3	—	3	—	—	—	—	3	
Shoulder	3	5	8	—	6	1	—	1	—	8	
Acromio-clavicular	1	—	1	—	—	—	1	—	—	1	
Astragalus	1	1	2	—	—	—	—	2	—	2	
Knee	2	—	2	—	2	—	—	—	—	2	
Hip	—	2	2	—	1	1	—	—	—	2	
Totals	10	10	20	—	13	3	1	3	—	20	

* Results :—(i) Good anatomical, good functional; (ii) Good anatomical, poor functional; (iii) Poor anatomical, good functional; (iv) Poor anatomical, poor functional; (v) Death.

Of the 505 cases of fracture or dislocation referred to above, 104 attended the out-patient fracture clinic for after-care.

In addition to the 505 cases of fracture or dislocation treated as in-patients, a further 253 cases were treated entirely as out-patients in the fracture clinic. At the close of the year 47 were still in attendance. The results of treatment of those discharged (206) are set out in the following table :—

Analysis of Cases of Fracture or Dislocation dealt with entirely as Out-patients and Treated to a Conclusion during 1932.

Bone or Joint.	Result.*				Total.
	(i).	(ii).	(iii).	(iv).	
<i>Fracture.</i>					
Phalanx (hand) and metacarpal—					
Simple	20	—	2	2	24
Compound	—	1	—	—	1
Scaphoid (carpal)	1	—	—	—	1
Semi-lunar	1	—	—	—	1
Colles' fracture	21	3	5	1	30
Radius (other than Colles')	17	—	2	1	20
Ulna	7	1	—	—	8
Radius and ulna	25	—	—	—	25
Humerus	10	—	—	—	10
„ supracondylar	16	—	—	—	16
Clavicle	28	—	2	—	30
Ribs	2	—	—	—	2
Scapula	1	—	—	—	1
Phalanx (foot) and metatarsal—					
Simple	10	—	1	—	11
Compound	—	—	1	—	1
Astragalus	1	—	—	—	1
Calcis	1	—	—	—	1
Potts' fracture	7	—	—	—	7
Fibula (other than Potts')	1	—	—	—	1
Tibia	6	—	—	1	7
Femur	—	—	1	—	1
Patella	1	—	—	—	1
Totals	176	5	14	5	200
<i>Dislocation.</i>					
Acromio-clavicular	—	—	1	—	1
Shoulder	—	—	1	—	1
Elbow	2	1	—	—	3
Finger	—	1	—	—	1
Totals	2	2	2	—	6
Grand totals	178	7	16	5	206

All fractures were simple except where otherwise indicated.

* Result :— (i) Good anatomical, good functional; (ii) Good anatomical, poor functional; (iii) Poor anatomical, good functional; (iv) Poor anatomical, poor functional.

The reduction of fractures under local anaesthesia by the injection of novocain into the haematoma, according to the method described by Bohler, was tried in a number of cases with success. The fractures treated by this method include :—

Colles'	8
Tibia and fibula	3
Potts'	1
Humerus	1
Total	13

In 8 cases novocain was injected within 12 hours of the accident. Anaesthesia and relaxation were satisfactory, and reduction successful. In 5 cases the injection was used about 24 hours after the accident. Anaesthesia was obtained in all, useful relaxation in 3, and successful reduction in 4. The unsuccessful case was reduced under gas and oxygen.

Where a general anaesthetic cannot be safely given, the method appears to be indicated. It is of less value if employed more than 12 hours after the accident, when diffusion of the novocain does not occur because of clotting of the haematoma.

The use of non-padded plaster of Paris splints after reduction of a fracture with local or general anaesthesia, as popularised by Bohler and Schenk, has been found of value in the treatment of certain fractures. The best results have been obtained in the case of fractures near the wrist and of the tibia and fibula. By using a walking iron with the last-mentioned leg fractures, ambulatory treatment has been possible from an early date, and the patient discharged from the ward and transferred to the out-patient fracture clinic much sooner than would ordinarily be possible.

Non-padded plaster splints have been used for 36 in-patients and 32 out-patients—total, 68 cases. After discharge from the ward all the in-patients have attended the out-patients' fracture clinic, where later treatment has been supervised and final results noted. Although the results of such of these cases as are completed have been included in the table dealing with out-patient fractures, it is instructive to study the details separately :—

Fracture.	In-patients.	Out-patients.	Required Massage.	Result.			
				(i).	(ii).	(iii).	Still attending.
Colles'	—	20	6	15	2	2	1
Small bones (hand)	—	5	—	3	—	—	2
Potts'	16	—	5	11	1	—	4
Tibia and/or fibula (1 compound)	16	6	6	17	1	—	4
Astragalus	—	1	—	—	—	—	1
Femur (neck)	2	—	—	1	—	—	1
Spine	2	—	—	—	—	—	2
Total	36	32	17	47	4	2	15

The advantages of the treatment are :—

- (1) Period of ward treatment shortened.
- (2) Less frequent need of massage.
- (3) Better functional results.
- (4) Probably quicker union of the fracture.

No disadvantages in the method, when applied in selected cases, have been found. It is understood, of course, that a satisfactory reduction of the fracture generally is obtained before the plaster is used, although this may not be indicated or necessary in the case of old feeble subjects.

2. Department of Anaesthetics.

The standard anaesthetic used in the operating theatres is nitrous oxide and oxygen, with or without ether. As a routine measure 1 c.c. of omnopon-scopolamine is used for basal narcosis in planned operations, unless contra-indicated; this has been found most satisfactory with nitrous oxide, oxygen and ether.

Analysis of Anæsthetics administered during the year 1932.

	Main Theatres.	Out- patient Depart- ment.	Maternity Depart- ment.	Wards.	Totals.
<i>General Anæsthesia—</i>					
<i>Closed—</i>					
Nitrous oxide and oxygen	376	782†	—	165	1,323
Nitrous oxide, oxygen and ether ..	2,365*	—	57	—	2,422
Oxygen and ether (endotracheal) ..	—	130	—	—	130
<i>Open—</i>					
Ether	52	132	30	—	214
Chloroform	12	8	6	—	26
Ethyl chloride	1	41	—	28	70
Chloroform and ether mixture ..	58	148	23	18	247
Ethyl chloride, ether and chloroform	—	1,417	—	—	1,417
<i>Regional (intrathecal) Anæsthesia—</i>					
Stovaine	74	—	—	2	76
Percaine	2	—	—	—	2
Duracaine (heavy)	4	—	—	—	4
Duracaine (light)	5	—	—	3	8
<i>Local Anæsthesia—</i>					
Novocaine (2 per cent.)	21	93	262	573	949
Cocaine	—	21	—	—	21
Totals	2,970	2,772	378	789	6,909

* Includes 313 administrations by the endotracheal route.
† Includes 628 administrations by the nasal route for dental extractions.

Summary.

General anæsthetics	5,849	} 5,939
Regional anæsthetics	90	
Local anæsthetics	970	
	6,909	

Of the 5,939 general and regional (spinal) anæsthetics given during the course of the year, 1,759 were administered by the visiting anæsthetists and 4,180 by the resident medical staff.

Three deaths under anæsthesia occurred :—

- (i) Male, aged 35, admitted with perforated gastric ulcer of 3 days' duration. Died during induction of nitrous oxide anæsthesia.
- (ii) Male, aged 14. Depressed fracture of skull with hæmorrhage from superior longitudinal sinus. Decompression under endotracheal gas, oxygen and ether. Died at close of operation.
- (iii) Male, aged 38, admitted with large submaxillary abscess. Incision under open chloroform. Patient collapsed and died almost immediately.

3. Department of Diseases of Ear, Nose and Throat.

Analysis of Operations.*

Removal of tonsils and adenoids by guillotine	1,417
Dissection of tonsils	81
Submucous resection of septum	34
Submucous resection and dissection of tonsils	8
Other operations on nose	10
Operations on sinuses—various	8
Paracentesis tympani	13
Mastoidectomy	92
Miscellaneous	8
	1,671

Of the operations for removal of tonsils, 1,088 were performed upon children referred to the hospital by the Education Committees of Edmonton, Enfield, Tottenham and Wood Green by agreement with the County Council. Tonsillectomy in children is performed in the out-patient theatre, the children subsequently remaining in the recovery room and being taken to their homes by ambulance in the late afternoon of the day of operation. If their condition is not entirely satisfactory they are retained overnight. It would be a more satisfactory arrangement if all cases remained in hospital for at least 24 hours after operation.

* Included in the table on page 99.

4. Department of Radiology.

I.—X-RAYS FOR DIAGNOSIS.

In-patients investigated	..	..	..	..	..	2,213
Out-patients investigated	..	..	..	..	..	1,631
Total patients investigated	..	..	..	..	..	3,844

Analysis of Investigations made during the Year.

Organ or tissue.	Appearances.		
	Normal.	Abnormal.	Total.
*Skull and contents	180	153	333
Lungs and mediastinum	119	355	474
Pleuræ and pleural conditions	57	164	221
Heart and aorta	10	32	42
Œsophagus, stomach and intestines	161	438	599
Biliary passages	60	74	134
Urinary system	187	84	271
Generative system	106	28	134
Bones and joints for injury	500	1,526	2,026
Bones and joints for disease or deformity	124	559	683
Miscellaneous	28	83	111
Teeth	2	16	18
Totals	1,534	3,512	5,046

* Fractures, diseases and deformities of skull are included in this section.

Special Methods of Investigation
(included in above Analysis).

Barium meals	..	..	..	..	..	..	520
Barium enemata	..	..	..	..	..	..	51
Cholecystograms	..	..	..	..	..	..	122
Lipiodal injections	..	..	..	..	..	..	3
Pyelograms	..	..	..	..	..	..	41
Total	..	..	..	..	..	..	737

Number of radiograms taken	..	..	..	..	..	11,027
Average number of radiograms per patient investigated	..	..	..	..	..	2.87

II.—X-RAY THERAPY.

(1) X-ray deep therapy.	
New cases treated during 1932	.. .. 93
Number of treatments given	.. .. 1,217
Total " r " units given	.. .. 391,480
(2) X-ray superficial therapy.	
Cases treated	.. .. 17
Number of treatments given	.. .. 80
(3) Grenz-ray therapy.	
Cases treated	.. .. 12
Number of treatments given	.. .. 123

5. Radium Department.

New cases treated during 1932	.. .. 53
Total attendances of new and old cases	.. .. 1,758
Radium treatments—	
By insertion	.. .. 48
By mould..	.. .. 36
	84
Anæsthetics administered	.. .. 53
Total milligramme-hours of radiation	.. .. 193,098

All patients who have received radium treatment are kept under prolonged supervision in order that the results of treatment may be observed over a period of years. The table which appears on pages 20 and 21 indicates the condition at the end of 1932 of all patients who have received treatment in the department since it was opened in 1930.

It is now a routine practice for patients treated by radium for malignant disease to undergo a course of x-ray deep therapy after radium treatment is completed.

Sarcoma—																				
Palate ..																				
Foot ..																				
Axilla ..																				
Recto-vaginal septum ..																				
Endothelioma—																				
Parotid ..																				
Total Malignant ..	44	20	1	9	9	4	1	43	21	5	10	6	1	32	20	10	2	—		
<i>Non-Malignant—</i>																				
Chronic metritis ..	—	1	—	—	—	—	—	1	1	—	—	—	—	—	4	—	—	—		
Endometritis ..	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—		
Adenomatous uterine polypus	—	1	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—		
Lupus ..	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—		
Wart ..	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—		
Keloid scar ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—		
Unhealed burn of arm	—	5	—	—	—	—	1	1	1	—	1	—	—	—	11	4	—	—		
Nævi ..	6	—	—	—	—	—	1	6	5	—	—	—	—	15	—	—	—	—		
Chronic tonsillitis ..	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—		
Total Non-Malignant ..	8	7	—	—	—	—	1	12	11	—	1	—	—	21	16	5	—	—		
Grand Totals ..	52	27	1	9	9	4	2	55	32	5	11	6	1	53	36	15	2	—		

The classification of carcinoma of the cervix uteri into stages is in accordance with the League of Nations classification, which is as follows :—

Stage I.—The growth is strictly limited to the cervix uteri. Uterus mobile.

Stage I.—The growth is strictly limited to the cervix uteri. Ovarus mobilis.
Stage II.—Lesion spreading into one or more fornices with or without infiltration of the parametrium adjacent to the uterus, the uterus retaining some degree of mobility.

Stage II.—Lesion spreading into one or more foci, with or without limitation of the parametrium adjacent to the uterus, the masses retaining some degree of mobility.
Stage III.—(a) Nodular infiltration of the parametria on one or both sides, with limited mobility of the uterus or massive infiltration of one parametrium with fixation of the uterus.

(b) More or less superficial infiltration of a large part of the vagina, with a mobile uterus.

(c) Isolated metastases in the pelvic glands, with a relatively small primary growth.

(d) Isolated metastases in the lower part of the vagina.

Generally speaking, all cases not falling into Stage II or IV will be placed under Stage III.

Stage IV.—(a) Cases with massive infiltration of both parametria extending to the walls of the pelvis.

(b) Carcinoma involving the bladder or rectum.

(c) The whole vagina infiltrated (rigid vaginal passage), or one vaginal wall infiltrated along its whole length with fixation of the primary growth.

(d) Remote metastases.

6. Department of Ophthalmology.

Number of refractions	448
Number of pairs of spectacles supplied	490
Number of major operations (lens extractions, trephining or iridectomy for glaucoma, &c.)	20

In addition, a large number of minor ophthalmic operations (incision of meibomian and sebaceous cysts and abscesses, cauterizations of corneal ulcers, removal of foreign bodies, &c.), were performed.

Number of attendances in the ophthalmic department, 3,001.

7. Dental Department.

Number of patients treated	1,073*
Number of teeth extracted	3,302
Number of general anæsthetics administered	628
Number of dentures supplied at or in connection with the dental department	56

In addition to the above, a number of cases of fracture of the mandible were treated by the Dental Surgeon in the wards by wiring or by dental splints.

8. Department of Actino-therapy.

								Number.	Treatments.
In-patients .. .. .	..	..	..	..	..	..	..	126	1,716
Out-patients .. .. .	..	..	..	..	..	..	..	392	12,458
Total .. .. .	..	..	..	..	..	..	..	518	14,174

Analysis of Treatment.

Type of Lamp.	In-patients.	Out-patients.	Total.
Carbon-tungsten arc	746	8,631	9,377
Tungsten arc	215	1,082	1,297
Mercury vapour	755	2,745	3,500
Totals	1,716	12,458	14,174

9. Department of Electro-therapy and Massage.

								Number.	Treatments.
In-patients .. .. .	..	..	..	..	..	..	..	368	7,469
Out-patients .. .. .	..	..	..	..	..	..	..	936	25,606
Total .. .. .	..	..	..	..	..	..	..	1,304	33,075

Of the treatments given, 6,121 were diathermy, the remainder consisting of treatment by radiant heat, faradism, galvanism, ionisation, sinusoidal currents, exercises and movements of various types and massage.

* Of this number, 229 were women referred from the ante-natal clinic at the hospital.

10. Maternity Department.

Ante-natal clinic.—The ante-natal clinic is conducted in the out-patient department of the hospital. Sessions are held twice weekly.

Ante-natal sessions held	..	..	..	..	..	97
Expectant mothers examined	..	..	..	..	..	1,134
Total attendances	..	..	..	..	..	6,269
Average number seen per session	..	..	..	..	..	63.6
Average number of attendances per expectant mother	..	..	..	..	..	5.5
Women referred for dental treatment..	..	..	..	..	..	229
„ „ pathological investigation	..	..	..	..	..	22
„ „ x-ray examination	..	..	..	..	..	108

Maternity Ward Block.

In the course of the year 1,239 women were delivered in the department and gave birth to 1,264 children. The following information relates to admissions and discharges during the year:—

	Mothers.	Infants.
Remaining in hospital 1st January, 1932	58	52
Admitted during the year	1,347	1,182
	———— 1,405	———— 1,234
Discharged during the year	1,344	1,145
Died during the year	4	44
	———— 1,348	———— 1,189
Remaining in hospital 31st December, 1932	57	45

The 1,348 patients who were discharged or died during the year are classified as follows:—

Delivered	..	..	..	..	..	1,239
Undelivered	..	..	..	..	..	15
Re-admitted	..	..	..	..	..	94
Total	..	..	..	..	..	1,348

Analysis of the 1,239 Deliveries during the Year.

					Per cent.
Mother admitted	..	Via ante-natal clinic	..	1,111	90
		Not via ante-natal clinic	..	128	10
		Total	..	1,239	100
Civil state	..	Married	..	1,171	94.5
		Unmarried	..	68	5.5
		Total	..	1,239	100
Parous state	..	Primipara	..	664	53.6
		Multipara	..	575	46.4
		Total	..	1,239	100
Presentation	..	Vertex—occipito-anterior	..	1,132	
		Vertex—occipito-posterior	..	45	
		Breech—uncomplicated	..	25	
		Breech—complicated	..	14	
		Face and brow	..	1	
		Transverse	..	4	
		Born before admission	..	43	
		Total	..	1,264	

23 sets of twins and 1 set of triplets included in above.

Table showing the method of Delivery of the 1,264 Babies Born in the Department.

Method of delivery.	Number of Births.	Deaths.		
		Maternal.	Foetal.	Neo-natal.
Natural forces	980	2	34	32
Natural forces after induction	173	—	13	6
Manual	4	1	3	1
Manual after induction	2	—	1	—
Forceps	58	—	7	4
Forceps after induction	10	—	3	—
Version	6	—	2	—
Traction-extension to scalp	8	—	7	1
Cæsarian section	20	—	1	—
Craniotomy	3	—	3	—
Total	1,264	3	74	44

One maternal death undelivered not included in above.

Medicinal inductions	143	
Medicinal inductions followed by bougies	37	
Bougies alone	5	
	185	
Delivered by midwives	1,110	
Delivered by doctors	111	
Midwife sought medical assistance in	155	
Born before admission	43	
Labour—		Per cent.
Normal	1,084	87·5
Abnormal	131	10·6
Multiple	24	1·9
Total	1,239	100
Birth—		
Full time	1,156	} 91·7
Post-mature	3	
Premature	31	2·45
Still-born	74	5·85
Total	1,264	100
Infants—		
Breast fed	1,011	
„ supplemented	143	
Artificially fed	35	
Total	1,189	

Obstetrical Operations.

Surgical induction	42
Internal version	3
Application of forceps	68
Cæsarian section	20
Manual removal of placenta	10
Craniotomy	3
Episiotomy and repair	20
Repair of ruptured perineum	288

Maternal Mortality.

Four maternal deaths occurred, particulars of which are as follows :—

Live Births.	Still Births.	Whether admitted via Ante-natal Clinic.	Mode of Delivery.	Maternal Complication.	No. of Cases.
—	—	No.	Undelivered	Marginal placenta prævia (hæmorrhage)*	1
1	—	No.	Natural forces	Broncho-pneumonia	1
—	1	Yes	Natural forces	Broncho-pneumonia	1
—	1	Yes	Manual under general anæsthesia	Puerperal septicæmia	1
1	2				4

* Moribund on admission.

Mortality rate per 1,000 women admitted to the department = 2.9.

Pyrexia in the Puerperium.

Cases are classified as pyrexial in which a rise of temperature occurs in the puerperium to 100.4° F. or over, and is sustained at that level for 24 hours, or recurs during that period.

The number of such cases which occurred during the year was 47. The following table furnishes information as to these cases :—

Live Births.	Still Births.	Mode of Delivery.	Causation.	No. of Cases.
7	—	Natural forces	Sapræmia	7
1	—	Forceps delivery	„	1
1	—	Natural forces after induction	„	1
—	1	Breech, manual delivery	„	1
3	—	Manual removal placenta	„	3
1	—	Natural forces	Phlegmasia alba dolens	1
—	1	Forceps delivery	„	1
1	—	Cæsarian section	Sapræmia	1
1	—	„	Peritonitis	1
—	2	Twins, natural forces	Perineal sepsis	1
12	—	Natural forces	Pyelocystitis	12
—	1	Natural forces after surgical induction	„	1
—	1	Craniotomy	„	1
1	—	Impacted breech, manual delivery	„	1
—	1	Forceps after surgical induction	„	1
8	—	Natural forces	Mastitis	8
1	—	Natural forces after induction	„	1
—	1	Scalp traction	Broncho-pneumonia	1
1	—	Cæsarian section	Bronchitis	1
1	—	Natural forces	Pulmonary tuberculosis	1
1	—	„	Constipation	1
40	8			47

Pyrexial rate = 38 per 1,000 women delivered.

Infantile Mortality.

Infants—	Per cent.
Born and survived	1,146 90.7
Born and died	44 3.5
Stillborn	74 5.8
Total births	1,264 100

Neo-Natal Deaths.

Details of 41 neo-natal deaths (deaths within 4 weeks of birth).

No. of Infants.	Method of Delivery.				Maternal Complications.				Cause of Death.				Age.
1	Natural forces	...	...	...	Nil	...	...	...	Congenital hernia diaphragm	...	...	...	1 day.
11	"	"	...	...	Nil	...	...	...	Prematurity	...	...	...	Less than 1 day.
1	"	"	...	...	Nil	...	...	...	Prematurity	...	...	...	3 days.
1	"	"	...	...	Nil	...	...	...	Prematurity	...	...	...	7 days.
1	"	"	...	...	Nil	...	...	...	Prematurity	...	...	...	4 days.
1	"	"	...	...	Nil	...	...	...	Intra-cranial hæmorrhage	...	...	...	Less than 1 day.
1	"	"	...	...	Nil	...	...	...	Acute nephritis	...	...	...	12 days.
1	"	"	...	...	Nil	...	...	...	Broncho-pneumonia	...	...	...	8 days.
2	"	"	...	...	Nil	...	...	...	Intra-cranial hæmorrhage	...	...	...	1 day.
1	"	"	...	...	Pyelocystitis	...	...	...	Intra-cranial hæmorrhage	...	...	...	16 days.
1	"	"	...	...	Nil	...	...	...	Intra-cranial hæmorrhage	...	...	...	2 days.
1	"	"	...	...	Nil	...	...	...	Hydrocephalus	...	...	...	2 hours.
1	"	"	...	...	Nil	...	...	...	Atelectasis...	...	...	...	11 hours.
1	"	"	...	...	Nil	...	...	...	Atelectasis...	...	...	...	6 days.
1	"	"	...	...	Nil	...	...	...	Atelectasis...	...	...	...	12 days.
1	"	"	...	...	Eclampsia	...	...	...	Gastro-enteritis	...	...	...	13 days.
1	"	"	...	...	Eclampsia	...	...	...	Gastro-enteritis	...	...	...	10 days.
1	"	"	...	...	Nil	...	...	...	Spina bifida	...	...	...	11 days.
1	"	"	...	...	Nil	...	...	...	Melæna neonatorum—hæmatemesis	...	...	...	3 days.
1	Natural forces after induction	...	...	...	Nil	...	...	...	Intra-cranial hæmorrhage	...	...	...	1 day.
2	"	"	"	"	Nil	...	...	...	Intra-cranial hæmorrhage	...	...	...	2 days.
1	"	"	"	"	Persistent albuminuria	...	...	...	Acute enteritis	...	...	...	18 days.
1	"	"	"	"	Nil	...	...	...	Spina bifida—septic meningitis	...	...	...	19 days.
1	Traction after induction...	...	...	...	Persistent albuminuria	...	...	...	Prematurity	...	...	...	10 hours.
1	Forceps	...	...	...	Nil	...	...	...	Intra-cranial hæmorrhage	...	...	...	4 days.
1	"	...	...	...	Nil	...	...	...	Intra-cranial hæmorrhage	...	...	...	7 days.
1	"	...	...	...	Nil	...	...	...	Prematurity	...	...	...	9 hours.
1	"	...	...	...	Nil	...	...	...	Intra-cranial hæmorrhage	...	...	...	2 days.
1	Manual delivery after induction	...	...	...	Nil	...	...	...	Intra-cranial hæmorrhage	...	...	...	3 days.
41													

Summary of causes of death.

Acute nephritis	..	..	..	..	..	..	..	..	1
Broncho-pneumonia	..	..	..	..	..	..	..	..	1
Prematurity	..	..	..	..	..	..	..	..	16
Fœtal shock	..	..	..	..	..	..	..	..	3
Birth injury	..	..	..	..	..	..	..	..	12
Melæna neonatorum	..	..	..	..	..	..	..	..	1
Congenital malformation	..	..	..	..	..	..	..	..	7
									—
Total neo-natal deaths	..	..	..	..	..	..	..	..	41
									—

Analysis of Cases of Normal and Abnormal Pregnancy, Parturition and Puerperium Treated to a Conclusion in Maternity and other Wards during the Year.

	Discharged.	Died.	Total.
Pregnancy	2	—	2
Pregnancy and spurious labour pains	112	—	112
Toxæmia of pregnancy (admitted as such)	1	—	1
Ectopic gestation	14	—	14
Pregnancy—			
Accidental hæmorrhage	4	—	4
„ „ and concomitant disease	45	1	46
Abortion—			
Threatened	25	—	25
Complete	8	—	8
Incomplete	184	2	186
Missed	10	—	10
With local infection	3	—	3
With general peritonitis	—	3	3
Labour—			
Normal	936	—	936
Normal with toxæmia	60	—	60
Normal and concomitant disease	48	3	51
Abnormal	81	1*	82
Abnormal and toxæmia of pregnancy	37	—	37
Abnormal and concomitant disease	12	—	12
Multiple	21	—	21
Born before arrival	38	—	38
„ „ „ multiple	3	—	3
Puerperium—			
Normal (admitted as such)	1	—	1
„ „ „ and concomitant disease	4	1	5
Post-partum hæmorrhage (admitted as such)	2	—	2
Retained products of conception (admitted as such)	7	—	7
Puerperal infections—			
Local (admitted as such)	7	—	7
Local pelvic (admitted as such)	2	2	4
General septicæmia (admitted as such)	—	1	1
Totals	1,667	14	1,681

* Marginal placenta prævia—undelivered.

11. Department of Pathology.

The department is housed in a separate one-storeyed building which contains two laboratories—a general laboratory and a small laboratory opening off it for the use of the pathologist. The department is well equipped, but suffers from the defects of being somewhat cramped for space, and of being situated too far distant from the acute wards of the hospital.

In addition to carrying out the entire pathological, bacteriological, biochemical and histological work of the North Middlesex County Hospital, the department during the past year has undertaken also a very considerable volume of laboratory work on behalf of the other general hospitals of the County Council. It does not appear practicable, however, further to extend this service, owing to the limited amount of laboratory accommodation available, and in the absence of building extension, the department must be regarded as working to capacity at the present time.

Classification of Examinations made in the Pathological Department during 1932.

	Pathological Examinations.														Bacteriological Examinations.																	
	Blood.														Cerebro-spinal fluid.			Urine, general.	Faeces, general.	Faeces, parasitic infections.	Fluids, exudates, &c.	Blood cultures.	Cerebro-spinal fluid.	Urine.	Faeces.	Pus.	Sputum.	Swabs.	Films for gonococci.	Hairs for ringworm.	Vaccines.	Animal inoculations.*
	Bleeding time.	Coagulation time.	Full count.	Full count, radium cases.	White cell count.	Platelet count.	Widal reaction, T.A.B.	Other agglutination tests.	Fragility of red cells.	Grouping.	Wassermann reaction.*	General.	Lange's curve.	Wassermann reaction.*																		
County Hospital—																																
North Middlesex ..	5	8	207	22	43	8	25	3	8	40	324	49	9	18	697	5	6	74	32	55	452	13	151	420	371	68	32	11	2			
West Middlesex ..	—	—	147	—	3	—	17	4	—	—	904	—	—	—	178	22	—	62	12	1	74	34	104	5	58	177	3	3	13			
Central Middlesex ..	—	—	80	—	6	—	3	—	—	—	13	16	9	11	54	6	—	30	1	2	54	14	19	5	8	12	—	—	4			
Redhill ..	—	—	2	—	—	—	13	1	—	—	67	16	5	6	11	6	—	14	13	8	23	28	27	—	57	7	—	1	—			
Hillingdon ..	—	—	—	—	—	—	7	2	—	—	75	26	17	18	19	2	3	9	2	5	19	10	6	—	43	—	4	12				
Total ..	5	8	436	22	52	8	65	10	8	40	1,383	107	40	53	959	41	9	189	60	71	622	99	307	430	537	264	35	19	31			

* Wassermann reactions and animal inoculation tests by arrangement are carried out by Mr. Benians in the pathological laboratory at the Prince of Wales's Hospital, Tottenham.

Summary of the total number of Pathological Examinations made for each County Hospital.

North Middlesex County Hospital	..	..	..	..	..	4,215
West Middlesex County Hospital	..	..	..	..	..	2,145
Central Middlesex County Hospital	..	..	..	..	..	748
Redhill County Hospital	..	..	..	..	..	334
Hillingdon County Hospital	..	..	..	..	..	369
						<hr/>
Grand total	..	..	..	..	..	7,811
						<hr/>

APPENDIX II.

ANNUAL REPORT ON THE WORK OF REDHILL COUNTY HOSPITAL DURING 1932,
PREPARED BY THE MEDICAL SUPERINTENDENT.

Staff.

MEDICAL.

Resident—

Medical Superintendent—

J. Nissen Deacon, M.C., M.B., B.S.

Deputy Medical Superintendent—

W. Arklay Steel, M.D., Ch.B., M.R.C.P.

Assistant Medical Officers—

E. B. Brooke, M.A., M.B., B.Chir.(Cantab.), M.R.C.P., D.P.H.

J. H. Attwood, M.B., B.S., M.R.C.S., L.R.C.P.

D. B. Craig, L.R.C.P., F.R.C.S.(Edin.).

Non-Resident—(part-time)—

Surgeon—

R. Trevor Jones, B.Sc., M.B., B.S., F.R.C.S.(Eng.).

Radiologist—

G. Simon, M.B., B.Chir.(Cantab.), D.M.R.E.(Cantab.).

Dental Surgeon—

J. A. Hudson, L.D.S., R.C.S.(Eng.).

NURSING—83.

Matron—Miss L. F. Dykes.

Administrative Sisters	..	..	3	Nurses and Probationers	..	.	65
Departmental Sisters	..	..	5	Massage Sister	..	..	1
Ward Sisters	..	..	6	Masseuses	..	..	2

OTHER STAFF.

(Non-Resident.)

Chaplain	..	..	..	..	..	Rev. C. E. de R. Copinger.
Steward	..	..	..	..	..	Mr. J. Fielding, A.R.S.I.
Pharmacist	..	..	..	..	..	Miss W. N. Knight, M.P.S.
Chief Assistant Dispenser and Biochemist	..	..	..	..	..	Miss E. Johnson, Ph.C., M.P.S.
Radiographer	..	..	..	..	..	Miss B. V. Poole, M.S.R.
Lady Almoner	..	..	..	..	..	Mrs. F. G. Owen.

Beds.

The existing block of buildings was planned to contain 175 beds and cots and 18 maternity cradles. In each of the four years, 1928 to 1931, one or more small additions to the complement were made. Since the latter part of 1931 the complement at 215 has remained unchanged. Until additional accommodation is provided no increase in this figure can be made with safety. The beds, cots and cradles are allotted as follows :—

Male—medical	..	..	..	..	..	32	
„ —surgical	..	..	..	..	..	30	
„ —ear, nose and throat	..	..	..	..	..	7	
						—	69
Female—medical	..	..	..	..	..	28	
„ —surgical	..	..	..	..	..	28	
„ —ear, nose and throat	..	..	..	..	..	8	
						—	64
Maternity beds	..	..	..	..	..	25	
„ cradles	..	..	..	..	..	25	
						—	50
Children under 7—General	..	..	..	..	..	24	
„ —Ear, nose and throat	..	..	..	..	..	6	
						—	30
Sick nurses	..	..	..	..	..	..	2
							—
						Total	215

Nurses Training School.

The hospital was opened in December, 1927. In April, 1929, it was approved by the General Nursing Council as a complete training school for nurses. In May, 1931, the Central Midwives Board approved the hospital as a training school for midwives and the sister-in-charge of the maternity department as a recognised teacher of midwifery.

After a trial period of three months, probationer nurses proceed to a three-years' course of training. On completion of the latter they are required to sit for the County Nurses' examination, and for the Final State examination for admission to the general part of the State Register of Nurses. To the nurse who most distinguishes herself in the County examination a County Gold Medal is awarded and County Silver Medals to the nurses who are second and third in order of merit. To those nurses who satisfy the examiners County Certificates of training are granted. Based on the results of the County examination, nurses who so desire are accepted for training for the certificate in midwifery granted by the Central Midwives Board.

ACADEMIC SUCCESSES DURING THE YEAR.

	Passes.
County Nurses Examination	12*
State Examination—Final	7
Certificate of Central Midwives Board	6

* Two passed with honours, and one, Miss D. Hanson, was awarded a County Gold Medal.

Miss C. F. Jacobs, Sister-Tutor, gained the Diploma of Nursing granted by the University of London.

Mr. J. Fielding, Steward, was made an Associate of the Royal Sanitary Institute.

Social Service Department.

In September, 1931, Mrs. F. G. Owen, the Lady Almoner, appointed and vested by the County Council with the powers of a relieving officer, commenced duty at the hospital. The year under review is the first complete year of service rendered by her department.

Although her duties are largely those of a relieving officer, the investigations made in this connection have enabled her to render advice and arrange help, apart from hospital treatment, for those who need it. Her presence here makes it unnecessary to refer to relieving officers, or to admit on emergency orders, many of those who apply direct to the hospital for in-patient treatment. In previous years more than half the number of those treated applied direct to the hospital for admission.

In connection with women seeking admission to the maternity wards her services are of particular value. Such women, given that they are not in labour, are referred direct to her. In 1932 the number of new cases so referred and interviewed was approximately 750. Women who, for one reason or another, cannot be accepted for admission are either advised how to proceed or have other arrangements made for them.

From those accepted the Almoner collects the fees at which they have been assessed. Usually these are paid in instalments and in advance, collection being made on the occasion of the expectant mother's visit to the ante-natal clinic. Many women take advantage of this arrangement and pay the whole fee before confinement.

The assessment and collection of payments from persons attending the various out-patient departments is another duty performed by the Almoner. Out-patient attendances in 1932 numbered 11,583.

As soon as possible after admission all patients injured in street accidents are seen by her in the wards. They are warned of the activities of agents representing firms of "touting" solicitors and, when necessary, put in touch with firms of good repute. Thus the interests of such patients are safeguarded and the possibility of recovering some, if not all of the cost of each is much increased. This arrangement is eminently satisfactory.

At present a full service, such as is given by the Almoner's department of any one of our large voluntary hospitals, is not possible. It is hoped that at some future date it will be possible here to make fuller use of the potentialities of this new department.

Hospital Library Service.

During the year a library service for in-patients was instituted. For some time past good glass-fronted book cupboards have stood in the hall. A book trolley was purchased. In November the British Red Cross Society kindly sent a first instalment of some 250 books, and Mrs. Hodgson, recommended by the Society as an Honorary Librarian, made the first of her regular weekly visits. The service is much appreciated.

Work of the Hospital.

As in previous years this is set out in the form of statistical tables and analyses which deal in detail with the work of the hospital during the year.

In each of the years 1929, 1930 and 1931 the number of patients treated to a conclusion exceeded that of the previous year. In 1932, the fifth year of our existence, not only did an increase not occur but the number of in-patients treated is actually a little less than that of the preceding year.

The reasons for this are :—

- (1) The existence and full functioning of an Out-Patient Department, making possible the treatment there of some who otherwise would have been admitted to hospital.
- (2) The fuller use made of beds at Redhill Institution, where the medical work has been under the control of the hospital superintendent since December, 1931. Certain cases of a type heretofore admitted to hospital and later transferred to Redhill Institution have been sent direct to the latter.
- (3) The increase in the average length of stay due to the fact that a greater number of dangerously ill patients was treated.

If one excludes the number of maternity cradles and that of the newly-born infants who occupied them, one finds that during the year approximately 3,000 patients passed through 190 beds and cots. Truly a remarkable performance and one that has put no small strain on members of the medical and nursing staffs. It is of interest to note that of every 5 patients treated, 2 were children under 16.

The average daily number of beds unavailable by reason of repairs, infection and occupation by sick staff is 5·3, a decrease of 0·2.

The average daily number of occupied beds (190) is increased by 7. The average daily percentage of available beds occupied stands high at 90·6. When considering this last number, one must bear in mind the many specific uses to which our small total number of beds is put. Beds are allotted to male and female medical and surgical cases, maternity cases, male and female ear, nose and throat cases, and to cases of sick children, *i.e.*, to 8 groups, each in a separate ward.

The average length of stay per patient is 19·8 days, an increase of 0·9 days. This increase is accounted for by the fact that the proportion and actual number of dangerously ill patients are greater. For five years in succession the death-rate has fallen, and now stands at 5·8 per cent.

SPECIAL DEPARTMENTS.

The number of special departments remains unchanged. To the work of a few special attention is drawn here below.

Operations and Anæsthetics.

The numbers of major operations (866) and of operations performed in the theatres (1,732) exceed those of the preceding year by 110 and 176 respectively. Excluding those given for dental purposes, 1,716 general anæsthetics were administered, an increase of 218.

Maternity.

For five years in succession there has been an increase in the work of this department. Owing to the fact that it is working to capacity, this increase is but slight. The number of confinements at 520 compares with 502 in 1931.

In the autumn a new out-patient department in a temporary building was put into use. Although primarily conceived for the accommodation of the ante-natal clinics, it was so designed that all classes of out-patients can be seen and treated therein. It is an extremely useful and compact unit and one capable of accommodating numbers of out-patients much in excess of those now attending. The block contains the Almoner's department, a waiting hall capable of seating 80–90 persons, two inspection rooms (each served by three dressing cubicles and opening into a common reception room), and the usual sanitary offices. The work of the ante-natal clinics has been facilitated greatly by its use.

The number of expectant mothers examined is 652, an increase of 140. They made 2,450 attendances, an increase of 176 on the 1931 figure.

Ear, Nose and Throat.

The work of this department continues to increase. 538 patients (15 per cent. of the total) were primarily treated for diseases and conditions of the ear, nose and throat. With one exception these constitute the largest group of diseases treated.

In April, 1929, arrangements were made with the Hendon Education Committee for the operation for removal of tonsils and adenoids to be performed at this hospital on a certain proportion of children, considered by the school medical officers to be in need of such. During the past year 139 children were admitted under this arrangement. Children admitted at 5 p.m. on Monday for operation on Tuesday are discharged at 10 a.m. on Wednesday, and those admitted at 5 p.m. on Wednesday for operation on Thursday are discharged at 10 a.m. on Friday.

Ear, nose and throat operations number 783.

In connection with this, as with other special departments in this hospital, the knowledge that it exists and is available results in an increasing number of cases being referred to it for treatment.

Massage, Electro-therapeutic and Light.

Owing to an increased demand for electrical and ultra-violet light treatments, better accommodation for these departments was found to be necessary. Accordingly, the massage department was allotted to them for their sole use. A new waiting room was added and orders for additional equipment placed. Accommodation for massage out-patients and ambulatory in-patients was found in the new out-patient block. Orders for medical gymnastic and other massage equipment were placed.

Out-Patients.

Mention has been made above of the newly erected out-patient block. Situated as it is directly opposite the male and female receiving rooms and the casualty room, it forms, with them, a compact and serviceable unit. An out-patient sister was appointed for this unit. Her full-time staff consists of a staff-nurse and three assistant nurses for ambulance, receiving and casualty duties.

In the various out-patient departments are seen patients discharged from the wards, casualties, persons sent for consultation, special investigation and/or treatment, and women attending the ante-natal clinics. During the year 3,249 out-patients were treated. They made 11,583 attendances. Details of the out-patient work appear later in this report.

Co-operation with General Medical Practitioners.

During the year 1,362 letters were sent by the Medical Superintendent to medical practitioners on the discharge of their patients. These letters contained particulars of any investigations made and operations performed and the treatment given and advised.

The letters of thanks received from practitioners show how much this service is appreciated.

Statistical Tables and Analyses.

Remaining in hospital, 1st January, 1932	..	..	194	
Admitted	..	..	2,998	
Born in hospital	..	..	508	
			—	3,700
Discharged	..	..	3,311	
Died	..	..	205	
Patients treated to a conclusion during the year	..		3,516	
Remaining in hospital on 31st December, 1932	..		184	

Classification of Patients treated to a Conclusion.

Male infants under 3	..	..	400	
Boys, 3-16	..	..	398	
Men	..	..	734	
			—	1,532
Female infants under 3	..	..	344	
Girls, 3-16	..	..	310	
Women	..	..	1,330	
			—	1,984
Total..	..	..	3,516	

Children under 16 constituted 41 per cent. of all patients treated.

The number of *patients treated to a conclusion* during the year is the subject of the tables which follow.

I.—TABLE SHOWING HOW THE 3,516 PATIENTS TREATED TO A CONCLUSION DURING THE YEAR WERE
ORIGINALLY ADMITTED.

1. By Order of Local Public Assistance Officer (maternity cases)	345
2. By Relieving Officer or Lady Almoner's Order	1,401
By Medical Superintendent :—	
3. Births	504
4. Police cases (other than accidents)	29
5. Accidents	332
6. Maternity cases (emergency)	41
7. Other urgent cases	653
8. Transfer from institution or home—M.C.C.	67
9. Transfer from hospital—M.C.C.	—
10. Transfer from hospital or institution—other authority ..	4
11. By agreement with another authority	140
Total	3,516

Of the above patients, 50·3 per cent. were admitted by the Medical Superintendent.

Admitted twice during the year for the same disability ..	45
Admitted thrice during the year for the same disability ..	3

II.—TABLE SHOWING THE PARISHES TO WHICH THE 3,516 PATIENTS TREATED BELONGED.

Parish of Hendon	1,852
„ Kingsbury	463
„ Little Stanmore	209
„ Pinner	68
„ Great Stanmore	24
„ Harrow-on-the-Hill	194
„ Harrow Weald	72
„ Wembley	232
„ Wealdstone	366
Other districts of Middlesex	36
Total	3,516

Note.—The allotment of an accident case to any one of the preceding parishes is governed by the following rules :—

- (1) A person admitted, who is normally resident within the County, becomes a case for the parish of residence, irrespective of the district in which the accident occurs.
- (2) A person admitted, not being normally resident within the County, becomes a case for the parish in which the accident actually occurs.
- (3) A person admitted from and normally resident outside the County area becomes a case for the parish of Hendon, being the parish in which the Redhill County Hospital is situate.

III.—TABLE SHOWING THE RESULTS OF TREATMENT OR THE TERMINATION, TOGETHER WITH ANALYSES OF DEATHS IN AGE AND OTHER GROUPS.

Cured	..	..	..	..	..	2,554 = 72·6 per cent.
Relieved	..	..	..	..	..	671 = 19·1 „
Unrelieved	..	..	..	..	..	86 = 2·5 „
Died	..	..	..	..	..	205 = 5·8 „

Analysis of Deaths in Age Groups.

Ages.				Male.	Female.	Total.
Under 1	..	..	..	23	13	36
1-2	..	..	..	3	6	9
2-5	..	..	..	2	1	3
5-15	..	..	..	7	7	14
15-25	..	..	..	12	8	20
25-35	..	..	..	14	9	23
35-45	..	..	..	4	10	14
45-55	..	..	..	16	7	23
55-65	..	..	..	23	12	35
65-75	..	..	..	8	11	19
Over 75	..	..	..	3	6	9
Totals..	..	..	..	115	90	205

	Treated.	Died.	Case Mortality per cent.
Medical cases	748	101	13·5
Surgical and obstetric cases	2,768	104	3·7

	Percentage of total.		
*Deaths within 24 hours of admission	61	=	30
Deaths 24 to 48 hours after admission	22	=	11
Deaths 48 to 72 hours after admission	12	=	6
All other deaths	110	=	53
Total deaths	205	=	100

*Injuries	18
Terminal stage—acute disease	17
Terminal stage—chronic disease	16
Neo-natal deaths	10
Total deaths within 24 hours	61

For the causes of death, see Table VII.

IV.—TABLE SHOWING THE BEHAVIOUR OF PATIENTS AND THEIR MANNER OF DISCHARGE.

Patients whose behaviour was normal	..	..	..	..	3,458
Patients whose behaviour was abnormal	..	..	..	..	58*
Total					3,516
*Troublesome	...	...	...	...	15
Mentally deranged	...	...	...	...	32
Suicidal	...	...	...	...	11
					58

Discharge.

In the normal manner or by death	..	..	..	..	3,403
At own request, with Medical Superintendent's approval	..				74
At own request, against Medical Superintendent's advice	..				38
Ejected..	..	..	..	..	1
Total					3,516

V.—TABLE SHOWING WHITHER THE 3,516 PATIENTS WERE DISCHARGED.

1. To own, relative's or friend's home	..	..	..	..	2,466
2. To institution or children's home—M.C.C.	..	..	..	..	162
3. To out-patient department	..	..	..	..	497
4. To convalescent home	..	..	..	..	135
5. To general hospital—M.C.C.	..	..	..	..	16
6. To hospital or institution—other authority	..	..	..	..	10
7. To acute infectious disease hospital	..	..	..	..	12
8. To mental hospital	..	..	..	..	—
9. To sanatorium	..	..	..	..	9
10. To voluntary hospital	..	..	..	..	4
11. Died	..	..	..	..	205
Total					3,516

VI.—AVERAGES FOR THE YEAR.

Beds—average daily complement	..	..	..	..	215
Beds—average daily number available	..	..	..	..	209·7
Beds—average daily number occupied	..	..	..	..	190
Average daily percentage of available beds occupied	..	..			90·6
Patients per occupied bed—average number per annum	..				18·5
Nursing staff—average daily strength	..	..	..	..	76·7 †
Occupied beds per nurse—average number	..	..	..	..	2·48†
Admissions—average daily number	..	..	..	..	9·4
Dangerously ill—average daily percentage	..	..	..	..	10·5
Stay—average length in days per patient	..	..	..	..	19·8
Maximum number of beds occupied = 213 on 8th April, 1932.					
Minimum number of beds occupied = 143 on 15th July, 1932.					

† Includes Matron, 8 nurses not employed in the wards and 3 masseuses,

VII.—CLASSIFICATION OF THE DISEASES AND CONDITIONS FOR WHICH THE 3,516 DISCHARGED PATIENTS WERE PRIMARILY TREATED DURING 1932.

Classified according to the Nomenclature of Diseases (Sixth Edition, 1931), drawn up by the Royal College of Physicians of London.

	Medical.			Surgical and Obstetrical.			Total.
	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	
Healthy—							
No disease	7	—	—	—	—	—	7
Breast-fed infants with mother.. ..	15	—	—	—	—	—	15
Births	—	—	—	487	—	17	504
Diseases due to infection—							
Erysipelas	11	—	3	—	—	—	14
Gonorrhœa	—	—	—	3	1	—	4
Influenza and its complications	30	—	8	—	—	—	38
Measles—morbilli and rubella	10	—	1	—	—	—	11
Mumps, pertussis, varicella	3	—	3	—	—	—	6
Pneumonia—primary	42	—	6	—	—	—	48
Rheumatism—acute and sub-acute	20	—	—	—	—	—	20
Rheumatic chorea	5	—	1	—	—	—	6
Syphilis—primary and secondary	—	—	—	—	—	—	—
Tuberculosis—pulmonary	17	7	4	—	—	—	28
Tuberculosis—non-pulmonary	—	—	—	18	6	6	30
Miscellaneous notifiable	10	5	1	—	—	—	16
Miscellaneous non-notifiable	2	—	3	—	—	—	5
Infestations by metazoan parasites	3	—	—	—	—	—	3
Diseases of the nervous system—							
Of vascular origin	6	8	6	—	—	—	20
Mental diseases	6	6	—	—	—	—	12
Miscellaneous	30	—	1	—	—	—	31
Diseases of the eye	—	—	—	—	—	—	—
Diseases of the ear	—	—	—	103	—	1	104
Diseases of the nose and sinuses	—	—	—	17	—	—	17
Diseases of the circulatory system—							
Rheumatic carditis—chronic	16	1	4	—	—	—	21
Myocardial degeneration, etc.	8	3	7	—	—	—	18
Arteriosclerosis	5	4	2	—	—	—	11
Of the veins	—	—	—	9	—	1	10
Miscellaneous	7	2	3	—	—	—	12
Diseases of the blood and spleen	6	2	2	—	—	—	10
Diseases of the lymphatic system	—	—	—	33	2	—	35
Diseases of the endocrine glands	8	1	1	1	—	1	12
Diseases of the breast	—	—	—	7	—	—	7
Diseases of the respiratory system—							
Laryngitis	4	—	—	—	—	—	4
Bronchitis—acute	22	—	—	—	—	—	22
Bronchitis—chronic	13	—	1	—	—	—	14
Broncho-pneumonia	21	1	10	—	—	—	32
Pleurisy	12	1	1	—	—	—	14
Miscellaneous	13	1	—	—	—	—	14
Diseases of the teeth and gums	—	—	—	19	—	—	19
Diseases of the digestive system—							
Tonsilitis	—	—	—	101	—	1	102
Enlarged tonsils and/or adenoids	—	—	—	315	—	—	315
Peptic ulcers	18	—	5	6	—	2	31
Dyspepsia of infants	16	—	7	—	—	—	23
Carried forward	386	42	80	1,119	9	29	1,665

	Medical.			Surgical and Obstetric.			Total.
	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	
Totals brought forward ..	386	42	80	1,119	9	29	1,665
Diseases of the digestive system— <i>contd.</i>							
Of stomach and duodenum—other ..	6	1	1	—	—	—	8
Appendicitis	1	—	1	124	—	6	132
Visceroptosis, constipation, stasis ..	36	—	—	—	—	—	36
Herniæ	—	—	—	34	—	5	39
Of intestine, rectum, anus—other ..	19	3	1	3	—	4	30
Of liver and gall-bladder	16	—	1	6	—	—	23
Of peritoneum	3	—	—	3	—	2	8
Miscellaneous	9	—	—	2	—	—	11
Diseases due to disorders of nutrition or of metabolism	9	—	5	—	—	—	14
Diseases of the generative system—							
Of the male organs	—	—	—	40	1	2	43
Of the female organs	—	—	—	43	1	1	45
Pregnancy, parturition and puerperium—							
Normal and abnormal conditions ..	—	—	—	665	—	8	673
†Diseases of the organs of locomotion—							
Fibrositis group	9	—	—	—	—	—	9
Arthritis deformans	12	—	—	—	—	—	12
Miscellaneous	—	—	—	19	1	1	21
Diseases of the areolar tissue	—	—	—	48	—	3	51
Diseases of the skin	29	—	1	—	—	—	30
Diseases of the urinary organs—							
Nephritis	10	3	9	—	—	—	22
Pyelitis	29	—	—	—	—	—	29
Miscellaneous	12	—	1	10	—	—	23
Injuries—							
*Shock or other general injury	—	—	—	32	—	—	32
*Cerebral concussion	—	—	—	46	—	—	46
*Cerebral contusion	—	—	—	18	—	1	19
Burns and scalds	—	—	—	13	—	4	17
Wounds—clean and septic	—	—	—	48	—	2	50
Septic conditions of the hand	—	—	—	23	—	1	24
Contusion, ecchymosis, hæmatoma ..	—	—	—	34	—	1	35
Fractures and dislocations	—	—	—	238	5	22	265
Miscellaneous	—	—	—	25	—	2	27
‡Tumours, benign—							
Of the generative system	—	—	—	14	1	—	15
Of the urinary organs	—	—	—	3	—	—	3
Of other organs and structures	—	—	—	4	—	—	4
Tumours, malignant—							
Of the digestive system	—	—	—	3	5	6	14
Of the generative system	—	—	—	1	5	1	7
Of the urinary organs	—	—	—	—	2	1	3
Of other organs and structures	—	—	—	1	5	—	6
Tumours—intra-cranial	—	—	—	—	1	—	1
Tumours—unclassified	—	—	—	—	—	1	1
Cysts	—	—	—	4	—	—	4
Malformations—congenital	—	—	—	4	1	1	6
Poisonings	12	—	1	—	—	—	13
Totals	598	49	101	2,627	37	104	3,516

† 1918 group-title retained. That for 1931 is : Diseases of bones, joints, muscles, fasciæ and bursæ.
* The majority of cases had additional and superficial injuries.
‡ 1918 classification of tumours retained.

Medical cases	...	...	...	...	748	=	21	per cent. of total treated.
Surgical and obstetric cases	...	...	...	...	2,768	=	79	" " "
					3,516		100	

Diseases and Conditions treated to a Conclusion.

(Grouped in order of frequency.)

						Treated.	Died.
Pregnancy, parturition and puerperium	..					673	8
Diseases of the ear, nose and throat	..					538	2
Injuries—general and local	..	..	..	..	..	515	33
Births	..	..	..	..	..	504	17
						— 2,230	
Diseases of digestive system	..	..				341	35
Diseases due to infection	..	..	..			226	36
Diseases of respiratory system	..	..				100	12
Diseases of generative organs	..	..				88	3
Diseases of areolar tissue and skin	..	..				81	3
						— 836	
Diseases of urinary organs	..	..	..			74	10
Diseases of circulatory system	..	..				72	17
Diseases of nervous system	..	..	..			63	7
Tumours	..	..	..	..	..	54	9
						— 263	
Diseases of remaining groups	..	..				187	13
						—	—
Total treated						3,516 of whom 205 died.	
						—	—

The first four groups of cases together constitute nearly two-thirds of the total number treated to a conclusion. The first and fourth groups are dealt with in the Maternity section of this report.

Otitis media, mastoiditis, nasal obstruction, sinusitis, tonsillitis and enlarged tonsils and adenoids are the ear, nose and throat diseases and conditions for which relief was most frequently sought and given.

Of the injuries, 254 were sustained in street accidents, an increase of 28 on the 1931 figure, Fractures and dislocations, which together constitute more than half the number of injuries treated, are analysed here below.

Analysis of Fractures and Dislocations treated to a conclusion during the Year, their Nature, together with the Results of Treatment.

	Nature.		Result.					Total.
	Simple.	Compound.	Very Good.	Good.	Medium.	Poor.	Died.	
Skull	5	3	6	1	1	—	—	8
Skull with concussion	10	—	9	1	—	—	—	10
Skull with cerebral contusion	16	10	12	8	—	—	6	26
Vertebræ	4	—	1	1	1	1	—	4
Ribs	9	—	7	—	—	1	1	9
Clavicle	9	—	7	1	1	—	—	9
Scapula	—	1	—	1	—	—	—	1
Humerus	8	—	6	1	1	—	—	8
Radius or ulna or both	10	1	8	2	—	1	—	11
Carpus, metacarpus or phalanges	4	6	3	1	6	—	—	10
Pelvis	5	—	5	—	—	—	—	5
Femur, neck or great trochanter	7	—	4	1	—	2	—	7
Femur, shaft or lower end	21	2	18	3	—	—	2	23
Patella	4	—	4	—	—	—	—	4
Tibia	15	2	14	—	—	3	—	17
Fibula	8	—	8	—	—	—	—	8
Tibia and fibula, simple	21	—	17	4	—	—	—	21
Tibia and fibula, compound	—	7	3	1	3	—	—	7
Tarsus, metatarsus or phalanges	6	2	6	1	1	—	—	8
*Multiple bony injuries, simple	26	—	14	5	1	—	6	26
*†Multiple bony injuries, compound	—	13	2	1	2	1	7	13
Fracture-dislocations, various	10	3	12	—	1	—	—	13
Separated epiphyses	4	—	2	2	—	—	—	4
Dislocations, various	5	—	2	2	1	—	—	5
Pathological, malunited, &c.	8	—	2	2	2	2	—	8
Totals.. .. .	215	50	172	39	21	11	22	265

* Multiple fractures of the vertebral column, hand and foot and cases of fractured ribs, tibia with fibula and radius with ulna are not included in this group unless associated with one or more fractures or dislocations elsewhere. Multiple fractures of the bones of the skull, face and nose are not classified as multiple.
† One or more injuries being compound, not necessarily all.

20 per cent. of the fracture and fracture-dislocation cases were of the compound variety.

Male fracture and dislocation cases	197, of whom 19 died.
Female fracture and dislocation cases	68, of whom 3 died.
Totals	265, of whom 22 died.

Special Methods of Treatment applied to the above Cases.

Manipulation under general anæsthesia	55
Application of plaster of Paris	86
Application of plaster of Paris under general anæsthesia	32
Transfixion-extension by pin or wire	49
Open operation	21
Amputation for compound fracture of phalanx of hand	5
Amputation for compound fractures of metatarsals.. .. .	2
Amputation through femur	6*

* For compound fractures of tibia and fibula and gas-gangrene ... 2, both recovered.
For compound fracture of femur and gas-gangrene ... 1, recovered.
For fractures of femur, tibia and fibula ... 2, one died.
For compound fractures of femur, tibia and fibula ... 1, died.

In some cases more than one special method was applied to the individual.
With few exceptions plasters were applied on the Hawley table.

Results of Treatment.

	1932.	1931.	1930.
Very good	172 = 65 per cent.	165 = 68 per cent.	155 = 58 per cent.
Good	39 = 15 „	34 = 14 „	49 = 18 „
Medium or poor ..	32 = 12 „	32 = 13 „	34 = 13 „
Died	22 = 8 „	13 = 5 „	30 = 11 „
	<hr/>	<hr/>	<hr/>
Totals	265 = 100 „	244 = 100 „	268 = 100 „
	<hr/>	<hr/>	<hr/>

N.B.—The result of treatment is classified as “very good” only when the three following conditions are fulfilled :—

- 1. Little or no depreciation of function.
- 2. Anatomical alignment of fragments.
- 3. Shortening, if present, not exceeding half an inch.

The result of a fracture successfully treated by amputation is classified as medium.

Of 32 patients whose results were medium or poor—

- 11 had amputation.
- 6 were transferred before completion of treatment.
- 4 had pathological or old malunited fractures.
- 3 had mental disease and were transferred.
- 2 took own discharge.
- 1 had fractured skull.
- 1 woman, aged 73, had fracture of neck of humerus.

Cause of death—

Shock and cerebral contusion	14
Shock	3
Rupture of viscera	2
Internal hæmorrhage	1
Septicæmia	1
Gas-gangrene	1
	<hr/>
Total fracture deaths	22
	<hr/>

During the year there were treated to a conclusion, and entirely as out-patients, 64 cases of fracture and dislocation. These are not included in the above analysis and are additional. The total number of fracture and dislocation cases treated to a conclusion is therefore 329. With few exceptions these were sustained in street accidents.

Their number and severity are accounted for by the fact that within the area served by this hospital are many arterial roads along which cars can, and do, travel at speeds greater than those possible on roads within more congested areas. Consequently, when a pedestriau or a person travelling on a cycle or by car is struck, it is, as often as not, with considerable violence. Thus it is that such a large proportion sustains multiple fractures (1 in 7 of those treated as in-patients) and approximately 1 in-patient case in 5 is of the compound variety.

VIII.—THE WORK OF THE SPECIAL DEPARTMENTS.

1. Surgical	..	..	..	..	Major operations	..	..	866	
					Minor operations	..	..	1,947	
									2,813
2. Anæsthetics	..	..	..	..	General	..	..	2,127	
					Local	..	..	236	
					Spinal	..	..	8	
									2,371
3. Dental	..	..	..	..	Patients	..	..	301	
					Attendances for treatment	..		1,031	
4. Radiological	..	..	..	..	Patients investigated	..	..	1,330	
					Investigations	..	..	2,268	
5. Massage	..	..	..	..	Patients	..	..	464	
					Treatments	..	..	5,196	
6. Electro-Therapeutic and Light				..	Patients	..	..	186	
					Treatments	..	..	1,709	
7. Maternity	..	..	..	..	Women examined at Ante-Natal Clinic	..	..	652	
					Attendances at Ante-Natal Clinic			2,450	
					Births	..	..	529	
					Obstetric operations	..	..	159*	
					Attendances at Post-Natal Clinic			207	
8. Pathological	..	..	..	..	Investigations	..	..	1,368	
9. Ear, Nose and Throat			..	..	Operations	..	..	783*	
10. Therapeutic, Diagnostic, Prophylactic.					Special procedures	..	..	1,047	
11. Casualty and Out-Patients	..		..	..	†Patients	..	..	3,249	
					Attendances	..	..	11,583	
					Operations	..	..	462*	
12. Nurses' Sick Room	..	..	..		Admissions	..	..	63	

Note.—Included in the above figures are those of the minor operations, anæsthetics, special treatments and investigations performed on, given to or made on patients in the casualty, various out-patient departments and nurses' sick room.

* These operations are included in the numbers of major and minor operations and are not additional.
† Ante-natal and post-natal patients, attendances and operations included.

Department of Surgery.
Analysis of Operations performed during the Year.

	In-Patients.		Casualty and Out-Patients.		Nurses.		Totals.
	Major.	Minor.	Major.	Minor.	Major.	Minor.	
<i>General—</i>							
On skin and superficial structures ..	24	238	1	268	1	14	546
On arteries, veins and lymphatics ..	2	34	—	31	—	—	67
On nerves	—	1	—	—	—	—	1
On bones and joints	140	409	1	66	—	1	617
On muscles, tendons, bursæ and fasciæ	5	2	3	4	1	—	15
Amputations	10	11	—	—	—	—	21
On skull, brain and spine	2	—	—	—	—	—	2
On face	3	2	—	—	—	—	5
On eye	—	—	—	17	—	—	17
On mouth, pharynx and œsophagus..	1	6	—	1	—	—	8
On thyroid, accessory glands and neck	1	7	—	—	—	—	8
On breast	—	20	—	—	—	—	20
On thorax and contents	14	1	—	—	2	—	17
On abdominal wall and cavity	63	1	—	—	—	—	64
On stomach and duodenum	15	—	—	—	—	—	15
On intestine, rectum and anus	147	21	—	—	—	—	168
On liver, gall-bladder, pancreas and spleen	12	—	—	—	—	—	12
On kidney, and urinary tract	34	25	1	5	—	—	65
On male generative organs	8	45	—	1	—	—	54
On female generative organs	106	41	—	1	—	—	148
Unclassified	—	1	—	—	—	—	1
	587	865	6	394	4	15	1,871
<i>Special—</i>							
Obstetric	32	72	—	55	—	—	159
On ear, nose and throat	226	537	—	7	11	2	783
	845	1,474	6	456	15	17	2,813
Grand totals	2,319		462		32		

Operations—

Major	866
Minor	1,947

Operative Mortality—

Of in-patients who had major operations	5·2 per cent.
Of in-patients who had minor operations	0·3 „
Of in-patients who had major or minor operations	2·0 „

When the period of anæsthesia for an operation classified as minor exceeds half an hour, that operation becomes a major one.

Operations performed in Theatres—

	General.	Ear, Nose and Throat.	Total.
By Medical Superintendent	1	609	610
By Deputy Medical Superintendent	532	45	577
By Visiting Surgeon	252	2	254
By Resident Assistant Medical Officers	182	109	291
Totals	967	765	1,732

A detailed list of the operations performed during the year in the theatres, wards, casualty and out-patient departments would serve no useful purpose.

Below are given, under anatomical headings, the names and numbers of the operations most frequently performed.

On Skin and Superficial Structures (546)—

Toilet and suturing of wound	258
Toilet and tannic acid treatment of burn or scald	27
Incision for abscess, cellulitis, boil or carbuncle	103
For septic infection of hand	88

On Bones and Joints (617)—

With few exceptions these were in connection with fractures and dislocations, and were performed in the wards by the Deputy Medical Superintendent. Some have been detailed below the analysis of fractures. Transfixions by pin and wire (57), open operations for reduction and fixation of fragments (27), manipulations of fragments (388), and applications of plaster of Paris (126) constitute the majority of the operations in this section.

On Abdominal Wall and Cavity (64)—

Herniotomy for inguinal and femoral herniæ (11 strangulated)	32
Herniotomy for ventral and umbilical herniæ (1 strangulated)	3
Laparotomy—exploratory and for adhesiolysis, peritonitis, abscess, etc... .. .	22

On Stomach, Duodenum, Intestine, Rectum, Anus, Gall-Bladder (195)—

For peptic ulcer	15
Enterostomy/colostomy, with/without resection	11
For appendicitis	133
Proctoscopy, sigmoidoscopy	8
For ischiorectal and anal abscess	10
Cholecystostomy, cholecystectomy	12

On Kidney, Ureter, Bladder and Urethra (65)—

Cystoscopy (minor operation)	22
Cystoscopy and ureteric catheterisation	25
Suprapubic cystostomy	4

On Male Generative Organs (54)—

Suprapubic prostatectomy, diathermy of prostate	6
Circumcision (minor operation)	38
For hydrocele, hæmatocele	6

On Female Generative Organs (148)—

On ovary and/or tube	9
For ectopic gestation	5
Uterine curettage	7
Uterine/vaginal plugging and/or glycerine injection	30
Curettage for abortion	65
Hysterectomy	15
Vaginal plastic operation	5

Laparotomy was performed 242 times. This number does not include 32 herniotomies for inguinal and femoral herniæ and 9 open operations on the kidney and bladder; 133 laparotomies were for appendicitis and of the patients who had this operation 130 were treated to a conclusion.

Analysis of Operations for Appendicitis performed on Patients treated to a Conclusion.

	Males.			Females.			Totals.		
	Relieved.	Died.	Total.	Relieved.	Died.	Total.	Relieved.	Died.	Total.
Acute*	19	—	19	20	—	20	39	—	39
Acute with local peritonitis ..	26	—	26	16	—	16	42	—	42
Acute with local abscess ..	7	—	7	3	—	3	10	—	10
Acute with general peritonitis ..	11	2	13	9	4	13	20	6	26
Subacute or chronic ..	6	—	6	7	—	7	13	—	13
Totals	69	2	71	55	4	59	124	6	130

* Appendices proved by section to be acutely inflamed.

Operative mortality for 117 acute cases = 5.1 per cent.

2. Department of Anæsthetics.

Analysis of Anæsthetics administered during the Year.

	In-Patients.	Casualties and Out-Patients.	Dental.	Totals.
<i>General Anæsthesia—</i>				
By chloroform, ether or mixture ..	1,145	11	13	1,169
By ethyl chloride	3	—	30	33
By nitrous oxide and oxygen ..	333	45	366	744
By nitrous oxide, oxygen and ether ..	51	1	—	52
By nitrous oxide, oxygen and ether given by endo-tracheal route ..	127	—	2	129
	1,659	57	411	2,127
<i>Local Anæsthesia—</i>				
By application to mucous membrane ..	18	6	—	24
By freezing with ethyl chloride ..	11	1	2	14
By infiltration	144	11	29	184
Regional by infiltration and nerve block	—	—	14	14
	173	18	45	236
<i>Spinal Anæsthesia—</i>				
By intrathecal injection	8	—	—	8
	8	—	—	8
Totals	1,840	75	456	2,371

Two deaths on the operating table occurred. The first, a case of ruptured ectopic gestation with 5 pints of free blood in the peritoneal cavity, died during auto-transfusion of blood and after completion of the abdominal operation. The second, a man with compound fractures of femur, tibia and fibula, died on completion of amputation through the femur.

Nembutal.—286 patients had pre-medication with nembutal. In every case the oral route was used and found to be simple, effective and safe. The drug was used solely to eliminate fear of the anæsthetic and in this connection it was most successful. It was noted that after its exhibition less anæsthetic was required and post-operation vomiting was absent or markedly diminished.

Dr. Attwood administered 1,525 of the general anæsthetics given during the year.

3. Dental Department.

Analysis of Patients treated, Attendances made and Treatments given during the Year.

	Number treated.	Attendances for treatment.
Hospital in-patients	159	553
Infirmary patients	19	49
Ante-natal clinic cases	98	288
Other out-patients	25	141
Totals	301	1,031

	Attendances.
For Extractions under general anæsthesia*	407
„ „ „ local anæsthesia*	45
„ „ without anæsthesia	18
	470
For osteotomies for buried roots and impactions ..	11
„ fillings	116
„ gum treatment and scaling	90
„ examination and advice	198
„ fractured jaw (6) and dislocation (1)	33
„ odontoma (1) and epulis (2)	3
„ miscellaneous procedures	110
Total number of attendances ..	1,031
Total number of teeth extracted	2,487
Total number of temporary dressings	119
Total number of fillings in permanent teeth ..	126
Total number of fillings in deciduous teeth ..	35
	280

* For analysis of dental anæsthetics, see under Department of Anæsthetics.

4. Radiological Department.

Hospital in-patients investigated	761
Infirmary patients investigated	40
Out-patients investigated	529
Total patients investigated	1,330

Analysis of Investigations made during the Year.

	Appearances.		Total.
	Normal.	Abnormal.	
Skull for injury	107	65	172
Skull and contents for disease or deformity ..	13	40	53
Lungs and mediastinum	43	93	136
Pleuræ and pleural conditions	4	86	90
Heart and aorta	5	18	23
Esophagus, stomach and intestines	103	56	159
Biliary passages	16	14	30
Urinary system	38	23	61
Generative system	16	19	35
Bones and joints for injury	300	828	1,128
Bones and joints for disease or deformity ..	91	133	224
Miscellaneous—for foreign bodies, etc. ..	19	12	31
Dental	12	114	126
Totals	767	1,501	2,268

Special Methods of Investigation.*

Barium meals	102
Barium enemata	25
Cholecystograms	20
Lipiodol injection	1
Pyelograms—retrograde	13
Urograms—intravenous	9
Screening the removal of foreign body	2
Manipulation and fixation of fracture—	
Under fluorescent screen	10
Under screen and general anæsthetic	25
	<hr/> 207 <hr/>
Average number of investigations per patient	1.7
Number of radiograms taken	4,151
Average number of radiograms per investigation	1.83
Average number of radiograms per patient	3.12

The number of investigations made in 1932 exceeds that of 1931 by 612. The increase is due to the greater numbers of accident cases and out-patients examined.

Of the 2,268 investigations made in 1932, 57 per cent. were in connection with injuries of the skull, bones and joints.

Of the 767 investigations showing normal appearances 53 per cent. were made to prove the absence of fracture.

The work of this department is now two and a half times as great as it was in 1929. By reason of the fact that the accommodation provided is inadequate both patients and staff are inconvenienced in no small degree.

5. Massage and 6. Electro-Therapeutic and Light Departments.

Patients.	Massage.			Electro-Therapeutic.			Ultra-Violet Light.		
	In-patients.	Out-patients.	Total.	In-patients.	Out-patients.	Total.	In-patients.	Out-patients.	Total.
Remaining from 1931	17	14	31	4	3	7	1	—	1
Admitted to department	208	225	433	22	31	53	110	15	125
Remaining under treatment	20	36	56	3	10	13	5	1	6
Treated to a conclusion	205†	203	408	23	24	47	106	14	120
Treatments	3,013	2,183	5,196	409	352	761	793	155	948

Applications of radiant heat, made in conjunction with tannic acid in the treatment of burns and scalds are not included.

Medical massage cases admitted	136 = 29 per cent.
Surgical massage cases admitted	328 = 71 „
Total massage cases admitted	<hr/> 464 = 100 „ <hr/>

The treatments given in the above-named departments comprise—Massage and remedial exercises, galvanism, faradism, sinusoidal current, radiant heat and ultra-violet light by mercury vapour lamps.

* Included in the above Analysis of Investigations, and therefore not additional.
† Of these, 124 were discharged to the out-patient massage department, where they received 1,331 of the 2,183 treatments given.

7. Maternity Department.

Ante-Natal Clinic.

Ante-natal sessions held	..	..	..	..	..	49
Expectant mothers examined	..	..	..	..	..	652
Total attendances	..	..	..	..	..	2,450
Average number seen per session	..	..	..	..	..	49.7
Average number of attendances per expectant mother	..	..	..	..	..	3.76
Sent for dental treatment	..	..	..	..	..	140
Sent for pathological examination	..	..	..	..	..	18
Sent for radiological examination	..	..	..	..	..	27

Analysis of the 520 Deliveries which took place during the Year.

						Per cent.
Mother Admitted	..	Via ante-natal clinic	..	..	469	.. 90
		As an emergency case	..	..	51	.. 10
Total					.. 520	.. 100
Civil State	..	Married	..	..	.. 464	.. 89
		Unmarried	..	..	.. 56	.. 11
Total					.. 520	.. 100
Parous State	..	Primipara	..	..	.. 311	.. 60
		Multipara	..	..	.. 209	.. 40
Total					.. 520	.. 100
Presentation	..	Vertex—occipito-anterior		..	469	
		Vertex—occipito-posterior		..	29	
		Breech—uncomplicated	..	..	10	
		Breech—complicated	..	..	8	
		Face and brow	..	..	2	
		Transverse	..	..	3	
		Born before admission	..	..	8	
Total					.. 529	

There were 9 sets of twins—

Both vertex occipito-anterior	..	..	..	..	5 sets.
Vertex occipito-anterior and a breech	..	..	..	..	2 sets.
Vertex occipito-posterior and a transverse	..	..	..	..	2 sets.

INDUCTION OF LABOUR.

Indication.	Number of Cases that had Induction.		
	Of Premature Labour.	At or After Term.	Total.
Disproportion	6 (1 failed)	8	14
Maternal Toxæmia	4	3	7
Post-maturity	—	3	3
Totals	10	14	24

Induction of labour was undertaken in 24 cases.

In 23 cases it was successful and delivery was by natural forces.

In 1 case forceps were applied after 2 medical and 1 surgical induction.

There was not a maternal, foetal or neo-natal death.

In 10 cases the first medical induction was successful.

In 7 cases the second medical induction was successful.

In 2 cases the third medical induction was successful.

In 4 cases success followed bougies after two medical inductions,

METHOD OF DELIVERY.

Method of Delivery.	No.	Deaths.		
		Maternal.	Fœtal.	Neo-Natal.
Natural forces	478	5	15	14
Natural forces after induction	23	—	—	—
Forceps	8	—	4	1
Forceps after induction	1	—	—	—
Version	4	1	1	—
Cæsarean section	13	—	—	1
Laparotomy—extra-uterine pregnancy	1	—	—	1
Embryotomy	1	—	1	—
Totals	529	6	21	17

Midwives delivered	492 cases
Doctors delivered	37 „
Midwives sought medical assistance in	141 „

LABOUR.

Conditions normal	444	85·4 per cent.
Conditions abnormal	67	12·8 „
Multiple labours	9	1·8 „
Total.. .. .	520	100 „

OBSTETRIC OPERATIONS.

Version	4
Application of forceps	9
Embryotomy	1
Cæsarean section	13
Laparotomy—extra-uterine pregnancy*	1
Surgical induction	5
Uterine plugging.. .. .	4
For adherent placenta	9
Repair of perineum—tear grade 1	37
tear grade 2	15
tear grade 3	6
Ante-natal clinic versions	55
Total.. .. .	159

Indications for which Cæsarean sections were done :—

Indication.	Booked.	Emergencies.	Totals.
Contracted pelvis and disproportion	4	—	4
Contracted pelvis, previous Cæsarean	1	1	2
Placenta prævia	1	3	4
Bad obstetric history	2	—	2
Severe prolapsus uteri	1	—	1
Totals	9	4	13

* Full-time female infant, 6 lb. 11 oz. in weight, lived 12 hours.

There were no maternal or foetal deaths. The one neo-natal death occurred in the child (weight 4 lbs. 2 ozs.) of a booked multipara (9), aged 38, who had placenta prævia. This woman and a booked multipara (9), aged 36, with severe prolapsus uteri, were sterilised at operation. The classical operation was performed eleven times and the lower segment operation twice.

Anæsthetics given for obstetric purposes	..	..	..	..	43
Average length of lying-in period in days	..	..	..	..	13·3
BIRTH.					Per cent.
Full time	..	..	..	469	88·6
Premature	..	..	..	39	7·4
Stillborn	..	..	..	21	4·0
Total..	..	..	..	529	100
Average weight at birth of infants—booked cases					7 lbs. 5 ozs.
Average weight at birth of infants—emergency cases					6 lbs. 14 ozs.
Infants not entirely breast fed					24

The tables which follow deal with the maternity patients *admitted* and the infants *born* during the year.

MATERNAL MORBIDITY.

All fatal cases and all cases in which a temperature of 100·4 F. or more is sustained for a period of 24 hours or recurs during that period (Ministry of Health standard).

Unless there is definite evidence to the contrary every case of pyrexia occurring in the puerperium is assumed to be due to uterine infection.

	Booked.	Emergency.	Total.
Deliveries (no deaths undelivered)	469	51	520
Pyrexial cases that survived	28	4	32
Pyrexial cases that died	4	1	5
Non-pyrexial maternal death	1	—	1
Pyrexial cases and maternal deaths	33	5	38
Maternal morbidity per cent.	7·04	9·80	7·31

In April the existence of a throat “carrier” among those working in the Maternity department being suspected, it was decided, after consultation with the County Medical Officer of Health, that special bacteriological investigations of the staff and of all present and future pyrexial cases were necessary. Accordingly, arrangements were made for this work to be done by Dr. Dora Colebrook, recently and especially detailed by the Ministry of Health and the Medical Research Council for the purpose of carrying out investigations of this nature.

In May tonsillar and nasal swabbings of all members of the medical, nursing and lay staffs who were working in the department, and swabbings from the cervix uteri or upper vagina, tonsils and nasal passages of the pyrexial cases then in hospital were sent to Dr. Colebrook at the new laboratories of Queen Charlotte’s Hospital at Hammersmith. Thereafter on the occurrence of fresh pyrexial cases, swabbings of the patients and of those members of the staff who were most closely in contact with the cases during labour, and for 48 hours after delivery, were despatched to Dr. Colebrook.

By agglutinin absorption tests Dr. Colebrook found evidence of serological relationship between the strains of hæmolytic streptococci grown from the tonsils of Pupil-midwife “W” and Midwife “V,” and from cervix uteri swabbings of cases 923, 924 and 1103. Proof of identity between the strain of Midwife “V” and that of case 923 exists.

On the 10th June the tonsils of the midwife and pupil-midwife were removed by dissection and sent for examination. From those of the former, hæmolytic streptococci, serologically identical with those of case 923, were grown. On three occasions after her return from post-operation sick leave throat and nasal swabbings of Midwife “V” were examined. All being negative she returned to duty in the department. By reason of the fact that her period of training was practically complete the pupil-midwife, on the expiration of her sick leave, did not return direct to the department. In her case also, post-operation throat and nasal swabbings were found to be negative. Early in September she was employed again in the department where, for a period of five weeks, she did relief duty.

Between the strains of organisms grown from the throats and/or noses of certain other members of the staff and those grown from cervix uteri swabbings of the other cases investigated serological relationship was not found.

The hæmolytic streptococci grown from the cervix uteri swabbing of case F. 73 do not react with case 923 serum or with Midwife “V” serum. Hæmolytic streptococci in pure culture were grown from the nasal swabbing of case F. 73. The investigation of this case and of the midwife and pupil-midwife who attended her continues.

Analysis of the 32 Pyrexial Cases that survived and the 5 Pyrexial Cases that died.

Case No.	Age.	Gravida.	Maturity.	Complication of Labour and/or Maternal Complication.	Method of Delivery.	Pyrexia.		Cause of Pyrexia.	Cervical Swabbing.	Duration of Pyrexia in days.	Remarks.
						Date of Onset.	Day of Puerperium.				
124	26	1	40	None ..	Normal	31 Oct.	1	Puerperal pyæmia ..	S.H.	88	M.D.
87	23	1	40	" ..	"	8 Jan.	7	Engorged breasts ..	—	3	W.
76	25	2	40	" ..	"	9 "	6	" ..	—	6	
125	19	1	40	" ..	"	23 "	9	Sapræmia ..	—	2	V.
315E	38	1	32	Albuminuria ..	"	24 Feb.	1	Toxæmia ..	—	4	W.
460	40	5	40	B. coli pyelitis ..	"	1 Mar.	9	Urinary infection ..	—	10+	
465	26	1	36	" ..	"	8 "	3	" ..	—	10+	
437	19	1	40	None ..	"	9 "	2	Unknown ..	—	7	
499	27	2	36	B. coli pyelitis ..	"	11 "	4	Pyelitis and pleurisy ..	—	10+	
446	27	1	40	None ..	"	12 "	6	Engorged breasts ..	—	8	V.
527E	19	1	40	B. coli pyelitis ..	"	21 "	2	Puerperal pyæmia ..	—	19	M.D.
734	26	3	36	Placenta prævia ..	"	2 Apr.	2	Pelvic cellulitis ..	—	10+	S.B.
722	21	1	40	None ..	Forceps	4 "	2	Uterine infection ..	—	10+	W.
959	28	1	40	Manual removal of placenta ..	Normal	12 "	4	Septicæmia ..	S.N.H.	10+	†
697	23	1	36	None ..	"	20 "	4	Infected perineal tear ..	—	10+	V.
702	24	1	38	Long 2nd stage ..	"	23 "	2	Infected perineal tear and urethritis ..	—	10+	V.
709	32	2	38	Old perineal injuries ..	"	24 "	1	Infected perineal and cervical tears ..	S.N.H.	10+	†
683	28	1	40	None ..	"	25 "	8	Sapræmia ..	—	6	† V.
715	25	1	40	" ..	"	1 May	7	Uterine infection ..	S.H.	7	† V.—M.D.
790	40	6	40	" ..	"	1 "	6	Septicæmia ..	S.H.	6	†
752	32	4	40	" ..	"	3 "	3	Infected cervical tear ..	S.H.	10	†
748	36	4	40	" ..	"	7 "	4	Coryza ..	—	2	
802	34	6	40	" ..	"	11 "	4	Infected cervical tear ..	—	10+	
923	27	1	40	" ..	"	18 "	6	Uterine infection ..	S.H.	10+	† V. and W.
924	22	1	40	Spontaneous, torn cervix ..	"	25 "	2	Infected cervical tear ..	S.H.	10+	† M.D.—S.B.
1278E	40	8	40	Rupture of uterus ..	Version to Breech	27 "	2	Pelvic cellulitis ..	B. coli	82	† M.D.
1103	32	2	40	None ..	Normal	18 June	8	Septicæmia ..	S.H.	25	† M.D.
1233	28	4	40	B. coli pyelitis ..	"	24 July	1	Urinary infection ..	—	4	†

Case No.	Age.	Gravida.	Maturity.	Complication of Labour and/or Maternal Complication.	Method of Delivery.	Pyrexia.		Cause of Pyrexia.	Cervical Swabbing.	Duration of Pyrexia in days.	Remarks.
						Date of Onset.	Day of Puerperium.				
1300	36	2	40	Bad obstetric history	Cæsarean section	31 July	2	Unknown	—	10	†
1466	25	1	40	None	Normal	2 Aug.	9	Abscess of breast	—	10	†
1519	19	1	32	B. coli pyclitis	"	19 " *	Pre-existed.	Urinary infection	—	10	†
1669	18	1	40	Abnormal twin labour	Forceps	8 Oct.	1	Uterine infection	—	10	S.B.2.
1706E	30	5	40	Previous Cæsarean	Cæsarean section	14 "	1	Hæmoperitoneum	—	10	†
1756	34	3	40	None	Normal	8 Nov.	9	Engorged breasts	—	2	
1979E	25	1	32	Pre-eclamptic toxæmia	Surgical induction	11 " *	Pre-existed.	Toxæmia and chronic nephritis	—	6	
F.73	27	1	40	Persistent occipito-posterior	Forceps	19 "	5	Uterine infection	S.H.	10	†
1961	21	1	40	B. coli pyelitis	Normal	1 Dec.	2	Abscess of buttock	—	10	V.

E after a case number indicates an emergency case. W.—Pupil-midwife "W" attended case. V.—Midwife "V" delivered case. S.H.—Streptococcus hæmolyticus. S.N.H.—Streptococcus non-hæmolytic. M.D.—Maternal death. S.B.—Stillbirth. S.B.2.—Second twin stillborn. * Date of delivery. † Dr. Dora Colebrook carried out bacteriological investigations.

32 Pyrexial Cases that Survived.

Uterine infection†	..	..	..	..	15
Urinary infection	..	..	..	..	5
Breast condition	..	..	..	..	5
Perineal sepsis	..	..	..	..	2
Maternal toxæmia	..	..	..	..	2
Coryza	..	..	..	..	1
Hæmoperitoneum	..	..	..	..	1
Abscess of buttock	..	..	..	..	1
Total	..	..	..	..	32

† Includes sapræmia, puerperal septicæmia and pyæmia, pelvic cellulitis, infected cervical tear and cases where the cause of pyrexia is unknown.

Analysis of the Causes of the Six Maternal Deaths which occurred during the Year.

Booked cases—Normal labour and delivery, each bearing a live child—							Deaths.
Puerperal pyæmia (Streptococcus hæmolyticus), delivered 31.10.31	..	..	..	..	..	..	1
Puerperal septicæmia (Streptococcus hæmolyticus), pulmonary embolus	..	..	..	..	..	..	1
Puerperal septicæmia (Streptococcus hæmolyticus) empyema	..	..	..	..	..	..	1
Puerperal pyæmia and pyelitis of pregnancy	..	..	..	..	..	..	1
Mitral stenosis with auricular fibrillation	..	..	..	..	..	..	1
Emergency case—Delivered by internal version to breech, stillbirth—							
Ruptured uterus, mother grossly obese, cord prolapsed	..	..	..	..	..	..	1
Total maternal deaths							6
Class I*—Death due to pregnancy and child-bearing (ectopics and abortions excluded †)							5
Class II*—Death due to disease concurrent with pregnancy and childbirth							1
Total maternal deaths							6
Group I*—A primary avoidable factor present (Ante-natal supervision omitted)							1 death.
Group II*—No primary avoidable factor present (well conducted normal labours)							5 deaths.
Total maternal deaths							6
MATERNAL MORTALITY.							Per cent.
Of 469 booked cases, 5 died							1·07
Of 51 emergency cases, 1 died							1·96
Total mortality							1·15

* Vide Interim Report of Departmental Committee on Maternity Mortality and Morbidity, 1930.

† Excluded here are 2 deaths from ruptured ectopic gestation and post-abortion sepsis respectively. These occurred in the general female wards.

STILLBIRTHS.

Details of the 21 Stillbirths.

Maternal Complication.	Method of Delivery.	Infant.	Cause of Foetal Death.
Booked—			
Toxæmia of pregnancy	Normal	F.T.	Maternal condition.
„ „ „	„	P.M.	„ „
„ „ „	„	P.M.	„ „
Pyelitis of pregnancy	„	F.T.M.	„ „
Placenta prævia	Forceps	P.	Complication of labour.
Prolonged labour, P.O.P.	„	F.T.	„ „ „
„ „ 1st twin	Normal	F.T.	„ „ „
Complicated breech	Breech	F.T.	Cerebral hæmorrhage.
None	Normal	P.	Prematurity.
„	„	P.	Anencephaly.
Emergencies—			
Toxæmia of pregnancy	Normal	P.M.	Maternal condition.
Placenta prævia	„	F.T.M.	Complication of labour.
„ „	„	P.	„ „ „
Prolonged labour	„	F.T.	„ „ „
„ „	„	F.T.	„ „ „
„ „	Forceps	F.T.	„ „ „
„ „ P.O.P.	„	F.T.	„ „ „
Prolonged breech labour	Breech	F.T.	„ „ „
„ „ „	Embryotomy	F.T.	„ „ „
Rupture of uterus (M.D.)	Version	F.T.	„ „ „
None	Normal	P.	Prematurity.

F.T. = Full-time; F.T.M. = Full-time macerated; P. = Premature; P.M. = Premature macerated
P.O.P. = Persistent occipito-posterior; M.D. = Maternal death.

Cause of Stillbirth.	Booked.	Emergency.	Totals.
Maternal conditions	4	1	5
Complication of labour	4	9	13
Placental states	—	—	—
Fœtal states	2	1	3
Totals	10	11	21

NEO-NATAL DEATHS.*

Details of the 17 Neo-natal Deaths.

Cause of Death.	Maternal Complication.	Method of Delivery.	Weight at Birth.	Age.
<i>Booked—</i>			lbs. ozs.	
Prematurity ..	None	Normal	5 2	11 hours.
” ..	”	”	3 2	5 ”
” ..	”	”	4 11	6 ”
” ..	”	”	5 6	46 ”
” ..	} Twins, None	”	2 6	10 mins.
” ..			2 4	10 ”
” ..	Pyelitis of pregnancy	”	3 6	4 hours.
” ..	Mitral stenosis	”	3 15	13 days.
” ..	Marginal placenta prævia	Breech	3 10	11 ”
” ..	Placenta prævia	Cæsarean section	4 2	1 hour
Spina bifida ..	None	Normal	6 5	12 days.
” ..	”	”	6 4	21 ”
Mongolism† ..	(Adherent placenta, P.P.H.)	”	10 0	17 ”
Undetermined	Albuminuria	”	7 6	1 hour.
Undetermined†	Extra-uterine pregnancy	Laparotomy	6 11	12 hours.
<i>Emergencies—</i>				
Prematurity ..	None	Normal	3 2	17 days.
Prematurity ..	Pyelitis of pregnancy	Forceps	3 8	16 hours.
17 infants				

* Deaths within 4 weeks of birth. † Post-mortem examination made.

Causes of Neo-natal Deaths.

Prematurity	12
Congenital abnormality	3
Undetermined	2
Total	17

INFANT MORTALITY.

	Per cent.
Of 529 infants born 12 were stillborn and 17 died =	7·18
Of 508 infants born alive 17 died	= 3·35
Of 39 premature infants born alive 12 died	= 30·77

POST-NATAL CLINIC.

	Mothers.	Infants.	Total.
Number of patients	74	86	160
Number of attendances	89	118	207

ANALYSIS OF CASES OF NORMAL AND ABNORMAL PREGNANCY, PARTURITION AND PUERPERIUM
TREATED TO A CONCLUSION IN MATERNITY AND OTHER WARDS DURING THE YEAR.

	Booked.	Emergencies.	Total.
Pregnancy, normal	2	1	3
Pregnancy and spurious labour pains	15	1	16
Toxæmia of pregnancy	—	2	2
Ectopic gestation	1	2	3
Pregnancy and ante-partum hæmorrhage	2	1	3
Pyelitis of pregnancy	3	9	12
Other affections connected with pregnancy	1	7	8
Abortion, threatened	—	9	9
„ incomplete and complete	1	74	75
„ missed	—	1	1
„ with post-abortum infection/sequela	—	13	13
Labour, normal	419	26	445
„ normal and toxæmia of pregnancy	—	2	2
„ normal and affection connected with pregnancy	16	2	18
„ abnormal	26	11	37
„ abnormal and toxæmia of pregnancy	1	1	2
„ abnormal and affection connected with pregnancy	—	2	2
„ multiple	8	3	11
Puerperium, normal*	1	4	5
Affections consequent on parturition*	2	4	6
Totals	498	175	673†

Abortion.‡

Cases treated to a conclusion	89
Pyrexial cases	11
Deaths	1
Pyrexial cases and death	12
Maternal morbidity per cent.	13·5

Labour.

Women discharged after birth of <i>live</i> children	504
Number of these women discharged by death	5
Mortality per 100 women giving birth to live children	0·99

* Admitted and treated as such.

† Among these 673 cases there were 8 deaths. Details of these are given under Causes of Maternal Deaths.

‡ Therapeutic inductions and cases of threatened abortion are not included.

8. Pathological Department.

Analysis of Investigations made during the Year.

	Made at	
	Redhill County Hospital.	Other Hospitals.*
Throat swab—culture for organism	5	85
Cervix uteri swab—culture for organisms	—	20
Pus—stained smear for organisms	40	—
„ —culture for organisms	—	19
Smear—stained for gonococci	12	7
Blood—counts	135	2
„ —agglutination for T.A.B.C.	—	13
„ —Wassermann reaction	—	67
„ —chemical estimations	33	1
„ —culture for organisms	—	14
„ —grouping	21	—
Cerebro-spinal fluid—various investigations	25	37
Pleural fluid—various investigations	15	18
Urine—microscopy of centrifuged deposit	418	—
„ —bacteriological investigations	—	34
„ —chemical investigations	75	—
Fractional test meal	6	—
Sputum—stained smear for T.B.	71	2
Fæces—bacteriological investigations	—	25
„ —for occult blood	21	—
Pathological material for section and report	—	29
Post-mortem examinations	118	—
Totals	995	373
Total investigations	1,368	

Post-mortem examinations :—

On the bodies of 205 persons who died in hospital, 81 full and 27 partial examinations were made. This gives an autopsy rate of 52 per cent. The remaining 10 examinations were made on the bodies of persons who died in Redhill Institution and on those brought in dead.

* North Middlesex County Hospital, University College Hospital and Queen Charlotte's Hospital Research Laboratory.

9. Ear, Nose and Throat Department.

Analysis of Operations performed during the Year.

For aural furuncle, foreign body, &c.	4
Paracentesis tympani	26
Mastoidectomy—(Schwartz, 54 ; Radical, 12)	66
Mastoid cauterisation, curettage, plastic, &c.	33
On nose and sinuses (various)	21
Removal of tonsils and adenoids by guillotine	328
Removal of tonsils by dissection	166
For hæmorrhage from tonsillar fossa	5
Quinsies opened	1
Laryngoscopy, Bronchoscopy	3
Mastoid/aural, examination/dressing under general anæsthetic	130
Total	783

The enucleation of tonsils and adenoids by blunt guillotine (Sluder method) is classified as a minor operation.

10. Therapeutic, Diagnostic and Prophylactic Procedures.*

Analysis of Special Procedures.

Injection of special drug, serum or vaccine	348
Injection of saline, subcutaneous and intraperitoneal	34
Multiple punctures of oedematous legs	3
Autohæmotherapy	42
Blood transfusion (auto. and hetero.)	14
Intravenous injection of saline or drug	42
Venesection	3
Lumbar puncture	52
Inhalation therapy (Speiss-Drager)	155
Paracentesis of pleural cavity	24
Paracentesis of abdominal cavity	3
Gastric lavage	11
Jennerian vaccination	316
Total	1,047

Note.—Hypodermic injection of drugs in common daily use, e.g., morphia, atropine, strychnine, camphor, &c., are not included in this list.

* None of these has been included in the foregoing lists of operations.

11. Casualty and Out-Patient Departments.

In-patients made out-patients	497
†Casualties.. .. .	1,234
Other out-patients	1,518
Total casualties and out-patients treated	3,249

Departments in which the above were treated.

Department.	Patients.	Attendances.
Medical	119	326
Surgical	737	2,254
Ante-natal	652	2,450
Post-natal	160	207
Ear, nose and throat	296	1,293
Dental	123	429
Orthopædic and fracture clinic	345	1,342
X-ray	529	592
Massage and Swedish remedial exercises	239	2,183
Electro-therapeutic	34	352
Light	15	155
Totals	3,249	11,583

Average number of attendances per out-patient, 3·6.

† A “Casualty” is a person in need of immediate treatment. The nature of the treatment required, the way in which application for it is made, and the number of subsequent attendances are immaterial.

Operations—

Suturing of wound	..	..	..	..	..	..	..	214
Toilet and tannic acid treatment of burn or scald	..	..	..	..	..	..	..	19
Incision of abscess, etc.	..	..	..	..	..	..	..	14
For septic infection of hand	..	..	..	..	..	..	..	18
Injection of varicose vein	..	..	..	..	..	..	..	31
Removal of foreign body in eye	..	..	..	..	..	..	..	17
Removal of foreign body in limb..	..	..	..	..	..	..	..	12
Manipulation of fracture or dislocation	..	..	..	..	..	..	..	58
Application of plaster of Paris	..	..	..	..	..	..	..	9
Genito-urinary—various	..	..	..	..	..	..	..	8
External version—in ante-natal clinic	..	..	..	..	..	..	..	55
Ear, nose and throat—various	..	..	..	..	..	..	..	7
Total								462

Anæsthetics—general	..	..	..	..	..	..	..	57
Anæsthetics—local	..	..	..	..	..	..	..	18
Total..								75

Admitted to hospital from out-patient department	..	..	..	..	..	63
Admitted to hospital from ante-natal clinic	..	..	..	..	..	483

12. Nurses' Sick Room.

Number of nurses at 31st December	..	..	..	..	..	..	83
Average daily strength of Nursing Staff..	..	..	..	..	..	..	76·7
Nurses off duty sick during the year	..	..	..	..	..	..	50*
Nursing days lost	..	..	..	..	..	..	850
Average number of days lost per annum—							
Per sick nurse	..	..	..	..	..	..	17
Per nurse on average daily strength	..	..	..	..	..	..	11·1

Disabilities.	No.	Major operations.	Minor operations.
Onychia	15	—	16
Ear, nose and throat conditions	13	11	2
Influenza and its complications	11	2	—
Septic conditions of skin and areolar tissue	9	—	—
Injuries	8	2	—
Miscellaneous	7	—	1
Totals	63	15	19

One nurse died (influenzal pneumonia and empyema).

* 11 nurses off duty twice, 1 nurse off duty thrice, making 63 admissions to the Nurses' sick room.

Comparative Tables.

	1930.	1931.	1932.
Beds—complement at 31st December	213	215	215
„ average daily complement	207	213·8	215
„ average daily number available	205	208·3	209·7
„ average daily number occupied	177	183	190
Average daily percentage of available beds occupied ..	86·3	87·8	90·6
Patients per occupied bed—average No. p.a.	17·8	19·4	18·5
Nursing staff—average daily strength	61·6	66·1	76·7*
Occupied beds—average number per nurse	2·87	2·92	2·48*
Admissions—average daily number	8·7	9·9	9·4
„ percentage by Medical Superintendent	57·5	57·1	50·3
On danger list—average daily percentage	7·9	10·1	10·5
Length of stay—average in days per patient	20·5	18·9	19·8
Medical cases	771	805	748
Surgical and obstetric cases	2,388	2,741	2,768
Total cases treated to a conclusion	3,159	3,546	3,516
Patients—cured per cent.	71·5	73·2	72·6
„ relieved „	17·2	17·9	19·1
„ unrelieved „	3·0	2·5	2·5
„ died „	8·3	6·4	5·8
Operations—major	576	756	866
„ major and minor	1,918	2,373	2,813
Anæsthetics—general	1,159	1,763	2,127
Dental patients	247	312	301
„ attendances for treatment	582	974	1,031
Radiological investigations	1,347	1,656	2,268
Massage treatments	4,989	4,934	5,196
Electro-therapeutic and light treatments	780	811	1,790
Ante-natal clinic—women examined	463	522	652
„ „ „ attendances	1,671	2,274	2,450
Confinements	420	502	520
Births	424	514	529
Maternal morbidity per cent.	3·32	4·58	7·31
Mortality per 100 women bearing live children	1·29	0·40	0·99
„ of all infants born in hospital per cent.	8·0	6·8	7·2
„ „ infants born alive in hospital „	2·74	2·59	3·35
Pathological investigations	1,526	1,227	1,368
Casualty and out-patients	—	2,276	3,249
Casualty and out-patient attendances	3,996	6,852	11,583

* Includes Matron, 8 nurses not employed in the wards and 3 masseuses.

APPENDIX III.

ANNUAL REPORT ON THE WORK OF CENTRAL MIDDLESEX COUNTY HOSPITAL
DURING 1932, PREPARED BY THE MEDICAL SUPERINTENDENT.*Removal of Inmates.*

On 1st October, 1932, the male and female inmates were removed from the Institution to Hendon and White Webb Homes, thus leaving 143 available beds. These are being used temporarily by nursing and other female staff pending the enlargement of the nurses' home. The removal of the inmates has also allowed the mentally defective youths to be segregated in the upper part of the male aged block with a qualified male nurse in charge, and thus set free a ward of 24 beds in the main hospital. This ward has since been continually full, and the female side of the hospital has also been taxed to its uttermost.

Maternity.

Maternity cases have been coming in from Willesden, Acton and Hendon districts to the number of 375. This is far too many for such a small maternity block and an extension is required, including rooms for the ante-natal clinic.

Mental.

Since the mental cases have been sent here from other districts, the number admitted has increased from 112 to 253.

New X-ray block.

This block will be opened as soon as the new x-ray apparatus is moved in and the cubicles for diathermy treatment fitted up.

New children's block.

The new children's block of 104 beds is nearing completion and will set free another 25 beds on the male side, and others in various parts of the hospital, especially in the separation wards where children were put in isolation.

Wireless.

A new wireless all-main set has been recently installed which is very much more satisfactory than the old one.

Alternating current is now being taken from the Willesden Council as a stand-by for the theatre and also for the wireless.

Tennis courts.

Two hard tennis courts have been laid down for the nurses.

Roads.

All the roads have been made up and gravelled, much improving the appearance of the grounds.

Staff.

(as on 31st December, 1932).

WHOLE-TIME MEDICAL STAFF.

Medical Superintendent—

W. E. Turner, M.R.C.S., L.R.C.P.

Deputy Medical Superintendent—

T. G. I. James, M.B., Ch.B., B.Sc., F.R.C.S. (Eng. & Edin.).

Assistant Medical Officers—

N. M. Matheson, M.B., Ch.B., F.R.C.S. (Eng.), M.R.C.P.

A. D. Abdullah, M.B., Ch.M., M.R.C.P.

E. H. Capel, M.B., B.S., M.R.C.P.

Visiting Radiologist—

A. Flett, M.D., D.M.R.E.

NURSING STAFF.

Matron—Miss B. Gebhard. Nurses—191 (including 4 male nurses and 2 midwives).

Beds.
(as at 31st December, 1932).

	Males.	Females.	Children's Cots.
Medical	125	150	} 30
Surgical	50	50	
Chronic sick	88	179	
Mental (short stay)	7	7	
Maternity	—	14	14
Nursery	—	10	40
Total	270	410	84

Total number of beds	764
Daily average number of beds occupied	757
Maximum number of beds occupied	817—14th July.
Minimum number of beds occupied	667—22nd Dec.

Statistical Tables for the year ended 31st December, 1932.

Remaining in hospital, 1st January, 1932	700
Admitted during the year	4,071
Born in hospital	341
	5,112
Discharged	3,784
Died	616
Patients treated to a conclusion during the year	4,400
Remaining in hospital on 31st December, 1932	712

Classification of Patients Treated to a Conclusion.

Male infants under 3	399
Boys, 3-16	276
Men	1,334
	2,009
Female infants under 3	357
Girls, 3-16	180
Women	1,854
	2,391
Total	4,400

1.—TABLE SHOWING HOW THE 4,400 PATIENTS TREATED TO A CONCLUSION DURING THE YEAR WERE
ORIGINALLY ADMITTED.

By Medical Superintendent	884
Relieving Officers' Order	3,132
Births	341
Police	21
Justices' removal orders	15
Local Public Assistance Officer	7
Total	4,400

II.—TABLE SHOWING THE DISTRICTS TO WHICH THE 4,400 PATIENTS BELONGED.

Willesden	3,684
Acton	246
Hendon	417
Harrow	53
Total.. .. .	4,400

III.—TABLE SHOWING THE RESULTS OF TREATMENT OR THE TERMINATION.

	Per cent.
Cured	2,877 65·36
Relieved	524 11·92
Not relieved	383 8·7
Died	616 14·02
	4,400 100·00

Deaths.

Ages.	Male.	Female.	Total.
Under 1 year	31	24	55
1-5 years	6	6	12
5-10 years	3	1	4
10-15 years	2	1	3
15-20 years	6	5	11
20-30 years	17	11	28
30-40 years	14	14	28
40-50 years	26	28	54
50-60 years	51	49	100
60-70 years	59	52	111
70-80 years	66	61	127
Over 80 years	35	48	83
Totals	316	300	616

Deaths within 24 hours of admission	57 (9·2 per cent.).
Deaths within 48 hours of admission	38 (6·2 per cent.).
Deaths within 72 hours of admission	35 (5·7 per cent.).

	130
All other deaths	486 (78·9 per cent.).
Total.. .. .	616

IV.—TABLE SHOWING WHITHER THE 4,400 PATIENTS WERE DISCHARGED.

Home	3,229
To other public assistance institutions	273
Fever hospitals	85
Sanatoria	21
Convalescent homes	9
To mental hospitals	167
Died	616
Total	4,400

V.—TABLE SHOWING DURATION OF STAY OF THE 4,400 PATIENTS TREATED TO A CONCLUSION DURING THE YEAR.

Four weeks or less	3,058
Exceeding four weeks but under thirteen weeks	928
Exceeding thirteen weeks	414
Total	4,400

VI.—CLASSIFICATION OF THE DISEASES AND CONDITIONS FOR WHICH THE 4,400 PATIENTS WERE PRIMARILY TREATED.

Disease or Condition.	Children under 16 Years of Age.		Men and Women.	
	Dis- charged.	Died.	Dis- charged.	Died.
Acute infectious disease	139	11	78	53
Influenza	5	—	37	6
Tuberculosis, pulmonary	1	—	54	31
,, non-pulmonary	4	1	11	1
Malignant disease	—	—	49	77
Rheumatism, acute	8	—	23	—
,, non-articular	2	—	9	—
,, chronic arthritis	1	—	31	—
Venereal disease	1	—	9	—
Puerperal pyrexia	—	—	4	1
,, fever (a) women confined in hospital	—	—	—	—
,, (b) admitted from outside	—	—	—	2
Diseases of child bearing	—	—	206	2
Mental diseases (senile dementia)	—	—	1	—
,, (other)	4	—	305	4
Senile decay	—	—	29	49
Accidental injury and violence	82	2	260	14
Diseases of nervous and sense organs	62	1	125	10
,, respiratory system	69	18	168	73
,, circulatory system	2	1	92	139
,, digestive system	110	21	337	31
,, genito-urinary system	13	1	142	28
,, skin	59	—	60	—
Other diseases	51	10	167	19
Maternity, mothers	—	—	341	1
,, infants	332	9	—	—
Healthy	131	—	170	—
Totals	1,076	75	2,708	541
Grand total	4,400.			

Diseases and Conditions treated to a Conclusion.
(Grouped in order of frequency.)

	Treated	Died.
Pregnancy, parturition and puerperium	557	6
Diseases of the digestive system	499	52
Injuries—general and local	358	16
Births	341	9
Diseases of the respiratory system	328	91
Mental diseases	314	4
Acute infectious diseases	281	64
Diseases of the circulatory system	234	140
Diseases of the nervous system	198	11
Diseases of the genito-urinary system	184	29
Malignant diseases	126	77
Diseases of skin and areolar tissue	119	—
Tuberculosis	103	33
Senile decay	78	49
Rheumatism	74	—
Influenza	48	6
Venereal diseases	10	—
Diseases of remaining groups	247	29
Healthy	301	—
	4,400	616

Mental Patients.

	Male.	Female.	Total.
Number remaining in wards on 31st December, 1931 ..	1	2	3
Number of admissions during the year	85	168	253
Number of discharges to wards (not certified) ..	31	50	81
Number of discharges to care of friends (not certified) ..	—	1	1
Number transferred to mental hospitals	52	115	167
Number died	1	1	2
Number remaining in wards on 31st December, 1932 ..	1	1	2

Analysis of Admissions of Mental Patients.

How admitted.	Male.	Female.	Total.
Placed under order by Medical Superintendent	22	68	90
Placed under order by Relieving Officers (Willesden) ..	8	19	27
Placed under order by Relieving Officers (Hendon) ..	38	72	110
Placed under order by Justices or Police	17	9	26
Total	85	168	253

VII. WORK OF THE SPECIAL DEPARTMENTS.

Surgical	Major operations	847	1,303
	Minor operations	456	
Anæsthetics	General	639	1,015
	Local	295	
	Spinal	81	
Dental	Extractions	98	
Radiological	Investigations	2,100	
	Radiograms	4,637	
Massage	Patients treated	275	
	Treatments	8,337	
Electrical	Treatments	197	
Maternity	Women examined at ante-natal clinic ..	391	
	Attendances at ante-natal clinic	894	
	Deliveries	375	
	Obstetric operations	41	
Pathological	Investigations (otherwise than in hospital)	1,749	
Out-patients	Number of patients seen	722	
	Number of attendances	1,396	
	Number who had received in-patient treatment previously	72	
	Number who were subsequently admitted for in-patient treatment	31	
Sunlight	Treatments	506	
	Patients treated	20	
Nurses Sick room ..	Admissions	63	

Operations on Bones and Joints (76), Muscles, Tendons and Bursæ (11).

Astragalectomy	1
Open reduction of fractures	6
Bone plating or wiring	3
Removal of semilunar cartilage	1
For osteomyelitis	9
Excision of knee joint	1
Sequestrectomy	4
Suturing of tendons	4
Removal of prepatella bursa	7
The remainder include the usual operative procedures for the treatment of fractures, dislocations, &c.	51

Amputations (5)

Leg	4
Finger	1

Operations on Arteries (5).

Ligation and repair of arteries	3
Embolectomy, femoral	2

Operations on the Thorax and its contents (51).

Rib resection for empyema	10
Plastic operation on wound	1
Aspiration	40

Operations on the Breast (9).

For carcinoma	1
For suppurative mastitis	8

Miscellaneous Group (421).

Proctoscopy	7
Sigmoidoscopy	21
Dilation of urethral stricture	14
Excision of abdominal sinus	2
Removal of dermoid of umbilicus	1
Excision of hæmorrhoids	3
For anal fissure	2
Insertion of De Pezzer catheters into bladder	4
Lumbar punctures	145
Dilation of supra-pubic wound	2
Injection hæmorrhoids	11
Suturing lacerations	32
Removal of nails	7
Excision of cysts	3
Removal of foreign bodies	15
Skin grafts	7
Removal of ganglion	1
Incision of abscesses	135
Diagnostic excision of glands	4
Blood transfusions	2
Excision of neavus	1
Para-vertebral injection	2

Operations on the Ear, Nose and Throat (73).

Mastoidectomy	30
Exploration of sinuses-frontal	2
Enucleation of tonsils by guillotine	34
Dissection of tonsils	3
Incision of peritonsillar abscess	2
Myringotomy	2

Operations on the Larynx and Œsophagus (8).

Œsophagoscopy	1
Tracheotomy	1
Suture, cut throats	3
Thyroidectomy	1
Hare lip	2

Operations on the Eye.

Iridectomy	2
--------------------	---

Operations on the Female Generative Organs—Gynæcological (138).

Abdominal.

Total hysterectomy	2
Subtotal hysterectomy	4
Ovariectomy	5
Salpingectomy and salpingo-oöphorectomy	8
For retroversion	3
Cæsarian section	2

Vaginal.

Dilation and curettage	96
Vaginal examinations	7
Colpo-perineorrhaphy	4
Amputation of cervix	2
Removal of polypus	1
„ Bartholin's cyst.	2
Intra-uterine injection	2

Operations on Female Generative Organs—Obstetrical (34).

Forceps delivery	8
Induction of labour	8
External version	6
Vaginal plugging for ante-partum hæmorrhage	8
Manual removal of placenta	2
Episiotomy	1
Craniotomy	1

Analysis of Fractures and Dislocations treated to a Conclusion during the Year, together with the Results of Treatment.

Fracture or Dislocation.	Result.			Total.
	Good.	Medium.	Died.	
Skull	11	2	5	18
Skull with concussion	3	1	1	5
Skull with cerebral contusion	1	—	—	1
Vertebrae	1	1	—	2
Ribs	10	1	—	11
Clavicle	9	1	—	10
Humerus	11	—	—	11
Radius or ulna or both	9	1	—	10
Carpus, metacarpus or phalanges	2	1	—	3
Pelvis	1	1	—	2
Femur	10	5	10	25
Patella	1	—	—	1
Tibia	6	1	—	7
Fibula	3	—	—	3
Tibia and fibula, simple and compound	15	—	—	15
Tarsus, metatarsus or phalanges	2	1	—	3
Multiple bony injuries, simple and compound	6	2	—	8
Fracture—dislocations, various	13	1	1	15
Separated epiphyses	1	—	—	1
Totals	115	19	17	151

Male fracture cases

Female fracture cases

Total

90

61

151

Analysis of Operations for Appendicitis performed on Patients treated to Conclusion.

	Males .			Females.			Totals.		
	Relieved.	Died.	Total.	Relieved.	Died.	Total.	Relieved.	Died.	Total.
Acute	62	1	63	54	2	56	116	3	119
Acute with local peritonitis ..	2	—	2	3	—	3	5	—	5
Acute with local abscess	5	—	5	10	—	10	15	—	15
Acute with general peritonitis ..	3	3	6	—	—	—	3	3	6
Subacute or chronic	2	—	2	8	—	8	10	—	10
Totals	74	4	78	75	2	77	149	6	155

Operative mortality for acute cases—3·8 per cent.

2. Department of Anæsthetics.

Analysis of Anæsthetics administered during the Year.

General.

Anæsthesia by chloroform, ether or mixture	610	
„ nitrous oxide	15	
„ ethyl chloride	14	
	—	639

Local.

Anæsthesia by application to mucous membrane	5	
„ freezing with ethyl chloride	45	
„ infiltration	200	
„ regional	4	
„ dental	41	
	—	295

Spinal.

Anæsthesia by intrathecal injection	78	
„ sacral	3	
	—	81
Total		1,015

3. Radiological Department.

Number of investigations (in-patients)	2,013
„ „ „ (out-patients)	87
Total.. .. .	2,100

Analysis of investigations made during the year—

Skull and contents	194
Lungs and mediastinum	328
Pleuræ—pleural conditions	66
Heart and aorta	18
Biliary passages	49
Æsophagus, stomach and intestines	263
Urinary system	142
Generative system	18
Bones and joints—injury	686
Bones and joints—disease	302
Miscellaneous	31
Teeth	3
Total.. .. .	2,100

Special methods of investigation (included in the above)—

Lipiodol injections	..	..	..	..	..	..	..	..	2
Cholecystograms	..	..	..	..	..	..	..	..	28
Urograms	..	..	..	..	..	..	..	..	30
Pyelograms	..	..	..	..	..	..	..	..	14
Enemata	..	..	..	..	..	..	..	..	40
Barium meals	..	..	..	..	..	..	..	..	323
Total..	..	..	..	..	..	..	..	..	437

Screen examinations—

Stomach	..	..	..	..	..	..	..	..	130
Enemata	..	..	..	..	..	..	..	..	30
Chest..	..	..	..	..	..	..	..	..	53
Various	..	..	..	..	..	..	..	..	2
Heart and aorta	..	..	..	..	..	..	..	..	6
Total..	..	..	..	..	..	..	..	..	221

Number of Radiograms taken	4,637
----------------------------	----	----	----	----	----	----	----	-------

4. Massage Department.

In-patients	..	..	239	Treatments	..	..	7,591
Out-patients	..	..	36	Treatments	..	..	746
Total	..	..	275	Total	..	..	8,337

Number of electrical treatments given	..	..	197
Sunlight treatment	..	..	506
Patients treated	..	..	20

5. Maternity Department.

Ante-natal clinic.

Ante-natal sessions held	..	..	..	..	..	..	52
Expectant mothers examined	..	..	..	..	..	..	391
Total attendances	..	..	..	..	..	..	894
Average number per session	..	..	..	..	..	..	17
Average number of attendances per expectant mother	..	..	..	..	..	..	2.28

Analysis of the 375 Deliveries which took place during the year.

								Per cent.
Mother admitted	..	Via ante-natal clinic	..	..	..	243	65
		Not via ante-natal clinic	..	..	..	132	35
		Total	..	..	..	375	100
Civil State	..	Married	..	..	..	313	84
		Unmarried	..	..	..	62	16
		Total	..	..	..	375	100
Parous State	..	Primipara	..	..	..	191	51
		Multipara	..	..	..	184	49
		Total	..	..	..	375	100

Analysis of Deliveries—continued.

Presentation	Born before admission	14
	Vertex occipito-anterior	330
	Vertex occipito-posterior	16
	Breech-uncomplicated	13
	Breech-complicated	3
	Face and brow	1
	Transverse	3
Total		380

There were 5 sets of twins.

Both vertex occipito-anterior	2 sets.
Vertex occipito-anterior and a breech	2 sets.
Transverse (1 stillborn, born before admission)	1 set.

Table showing the method of delivery of the 380 babies born in the Department.

Method of Delivery.	Number of Births.	Deaths.		
		Maternal.	Foetal.	Neo-natal.
Natural forces	356	*2	16	9
Natural forces after induction	5	—	1	—
Forceps	7	—	3	—
Forceps after induction	1	—	1	—
Version	6	—	1	—
Cæsarean section after tubal induction	2	—	—	—
Breech	2	1	1	—
Traction extension to scalp	1	—	1	—
Total	380	3	24	9

*Death due to disease concurrent with pregnancy and childbirth :—

- (1) Cerebro-spinal fever.
- (2) Lobar pneumonia.

Tubal inductions	8
Delivered by midwives	342
Delivered by doctors	14
Midwife sought medical assistance in	19

Labour—		Per cent.	
Normal	347	92·6	
Abnormal	23	6·1	
Multiple	5	1·3	
Total.. .. .	375	100·0	

Birth—			
Full-time	305	80·3	
Premature	51	13·4	
Stillborn	24	6·3	
Total.. .. .	380	100·0	

Average weight at birth—ante-natal clinic infants	7 lbs. 5 ozs.
Average weight at birth—other infants	6 lbs. 13 ozs.
Anæsthetics given for obstetric purposes	41.
Infants not entirely breast fed	7.
Average length in days of lying-in period	12.

Maternal Morbidity.

All fatal cases and all cases in which a temperature of 100·4° F. or more is sustained for a period of 24 hours or recurs during that period. (Ministry of Health standard.)

	Ante-natal clinic.	Non-ante-natal clinic.	Total.
Deliveries (no deaths undelivered)	243	132	375
Pyrexial cases	1	3	4
Deaths	1	—	1
Deaths due to disease, concurrent with pregnancy and child bearing	—	2	2
Pyrexial cases and deaths	2	5	7
Morbidity per cent.	0·82	3·78	1·86

Pyrexial Cases.

Live births.	Mode of delivery.	Maternal complications and causation.	Number of cases.	
			Ante-natal clinic.	Non-ante-natal clinic.
1	Natural forces ..	Eclampsia	—	1
1	„ „ ..	—	—	1
1	Natural forces after attempted induction	Manual removal of placenta	1	—
1	Forceps	Obstructed labour, craniotomy and episiotomy, retained placenta	—	1
Total pyrexial cases			4	

Maternal Deaths.

Still births.	Mode of delivery.	Maternal complication.	Number of cases.	
			Ante-natal clinic.	Non-ante-natal clinic.
1	Podalic version and breech	Ruptured uterus	1	—

Total maternal deaths	1
Deaths due to disease concurrent with pregnancy and childbirth	2
(1) Cerebro-spinal meningitis.	
(2) Lobar pneumonia.	
Maternal mortality—all cases	0·3 per cent.
Infant mortality—	
	Per cent.
Infants—born and survived	347 91·3
Infants—stillborn	24 6·3
Infants—born and died	9 2·4
Total births	380 100·0
Infant mortality—	
8·6 per cent. of all infants born.	
2·5 per cent. of all infants born alive.	

Still-births.

Details of the 24 Still-births.

Number Infants.	Method of Delivery.	Causation.	Mother.		Infant.	
			Prima- para.	Multi- para.	Full term.	Prema- ture.
16	Natural forces	Unknown	—	2	—	2
		“	1	—	—	1
		“	1	—	—	1(M)
		“	1	—	1(M)	—
		Toxæmia of pregnancy	1	2	3 (2M)	—
		Placenta prævia	1	1	—	2
		Accidental hæmorrhage	—	3	1	2
		Eclampsia... ..	—	1	1(M)	—
		Albuminuria and hydramnios	1	—	1	—
		Anencephalic meningocele	—	1	1	—
1	Natural forces, after induction	Small conjugate-prolapse cord	1	—	1	—
3	Forceps	Obstructed labour, craniotomy	—	1	1	—
		Prolonged labour... ..	1	—	1	—
		Lobar pneumonia	—	1	1	—
1	Forceps after induction	Small outlet	1	—	1	—
1	Breech	Transverse lie	—	1	—	1
1	Traction-extension to scalp	Placenta prævia	—	1	—	1
1	Podalic version	Placenta prævia	1	—	1	—
24			10	14	14	10

M.—Denotes macerated foetus.

Neo-Natal Deaths.

Details of the 9 neo-natal deaths (death within 4 weeks of birth).

No. of Infants.	Method of Delivery.	Maternal Complications.	Cause of Death.	Weight at birth.	Age.
				lbs. ozs.	
1	Natural forces	Cerebro-spinal meningitis	Congenital debility	6 10	19 hours.
1	“ “	Hydramnios	Atelectasis	7 —	6 hours.
1	“ “	Eclampsia, puerperal pyrexia	Congenital heart disease...	6 7	11½ hours.
1	“ “	Lobar pneumonia	Prematurity	2 8	1 hour.
1	“ “	None	Spina bifida	6 1	5 days.
1	“ “	Prolonged 2nd stage	Pressure at birth	7 11	2 days.
1	“ “	None	Prematurity	3 13	2½ days.
1	“ “	None	Prematurity	2 5	1½ days.
1	“ “	Hydramnios	Prematurity	4 1	25 mins.

Average weight at birth 5 lbs. 2 ozs.

Analysis of Cases of Normal and Abnormal Pregnancy, Parturition and Puerperium treated to a conclusion in Maternity and other Wards during the Year.

	Total.
Pregnancy	33
Pregnancy and spurious labour pains	2
Toxæmia of pregnancy	5
Abnormal conditions of gravid uterus and ovum	3
Ectopic gestation	2
Pregnancy—placenta prævia	2
“ accidental hæmorrhage—non-toxæmic	5
Pregnancy and concomitant disease	17

There were 9 deaths among these 603 cases.

A.	Due to pregnancy and child-bearing (abortion included) . .	..	5
B.	Due to disease concurrent with pregnancy and child-birth	..	4
			—
			9
			—

Maternal morbidity of cases of abortion.

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6. Pathological Examinations.

Analysis of investigations made during the year.

Nature of Specimen.	At Willesden General Hospital.	At Willesden Municipal Hospital.	At North Middlesex Hospital.	At St. Mary's Hospital.
Swabs for K.L.B.	—	297	3	—
Sputum for tubercle bacilli	—	243	6	—
Widal reaction	—	16	4	—
Cerebro-spinal fluid	87	—	26	—
Sections	65	—	—	—
Urine	63	—	85	—
L.C.G. curves	53	—	—	—
Blood urea	31	—	69	—
Fractional test meals	25	—	3	—
Blood cultures	11	—	3	—
,, counts	6	—	89	—
,, fæces for occult	4	—	197	—
,, sugar	—	—	46	—
Wassermann reaction	—	—	14	232
Pus, examinations of	—	—	14	—
Peritoneal fluid	—	—	1	—
Urethral film	—	—	8	—
Vaginal swabs	—	—	5	—
Urine-urea concentration	—	—	16	—
Pleural fluids—inoculations	—	—	27	—
Totals	345	556	616	232

Grand Total, 1,749.

Post-mortem examinations were made on the bodies of 6 per cent. of those dying in hospital.

7. Casualty and Out-Patient Departments.

	Patients.	Attendances.
Medical and surgical	563	563
X-ray	87	87
Massage and electrical	72	746
Totals	722	1,396
Ante-natal	391	894
Grand totals	1,113	2,290

8. Nurses Sick Room.

Number of nurses at 31st December	191
Nurses off sick during the year	63
Nursing days lost	452
Average number of days lost per sick nurse	7.1
Average number of days lost per nurse on staff	2

Disability—

Tonsillitis	21
Influenza	12
Rheumatism	4
Laryngitis	2
Pneumonia	2
Otitis media	2
Miscellaneous	20
Total	63

9. Comparative Tables.

	1931.	1932.
Beds—average daily number occupied	750	757
Admissions—average daily number	10	12
Births (born and discharged)	220	341
Discharges	3,714	4,400
Operations—major	399	847
„ minor	730	456
Anæsthetics—general	920	1,015
Dental treatments	62	98
Radiological investigations	1,956	2,100
Massage treatments	6,175	8,337
Sunlight	419	506
Ante-natal clinic—women examined	136	391
„ attendances	468	894
Confinements	225	375
Mortality of women bearing live children per cent.	0	0.3
Mortality of infants born in hospital „	7	8.6
„ infants born alive in hospital „	3	2.5
Pathological investigations	633	1,749
Casualty and out-patient attendances	853	1,396

APPENDIX IV.

 ANNUAL REPORT ON THE WORK OF WEST MIDDLESEX COUNTY HOSPITAL
 DURING 1932, PREPARED BY THE MEDICAL SUPERINTENDENT.

Staff.

(As on 31st December, 1932.)

MEDICAL AND NURSING STAFFS.

WHOLE-TIME MEDICAL STAFF.

Medical Superintendent—

J. B. Cook, M.D., Ch.B., D.P.H.

Deputy Medical Superintendent—

Miss M. W. Warren, M.R.C.S., L.R.C.P.

Assistant Medical Officers—

A. W. Badenoch, M.A., M.D.

M. M. Deane, M.D., M.R.C.P.

Miss E. I. Langston, M.D., B.S.

J. A. McLean, M.D.

G. Stephen, M.B., Ch.B.

VISITING MEDICAL STAFF.

Electro-Therapist—

C. A. Robinson, B.A., M.B., B.Ch., D.M.R.E.

Radiologist—

D. G. Arthur, M.R.C.S., L.R.C.P.

Ophthalmic Surgeon—

F. W. Law, M.A., M.D., F.R.C.S.

*Consultants—**Surgeon—*

L. E. C. Norbury, F.R.C.S. (Eng.).

Physician—

R. Travers Smith, F.R.C.P. (Ireland).

Gynæcologist—

J. W. Bell, L.R.C.P., L.R.C.S. and L.M.

Aural Surgeon—

L. Colledge, F.R.C.S. (Eng.).

NURSING STAFF.

Matron—

Miss E. Huggins.

Nurses—

191 Resident and 6 Non-Resident.

Classification of Accommodation and the Number of Beds occupied on 31st December, 1932.

	Men.		Women.		Children.		Total.	
	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Medical ..	108	106	133	132	—	—	241	238
Surgical ..	45	38	45	45	—	—	90	83
Children ..	—	—	—	—	119	79	119	79
Tuberculosis ..	16	12	17	17	—	—	33	29
Isolation ..	—	—	—	—	16	13	16	13
Maternity ..	—	—	31	30	—	—	31	30
Totals ..	169	156	226	224	135	92	530	472

Statistical Tables for the year ended 31st December, 1932.

Admissions and Discharges.

Remaining in hospital on 1st January, 1932	386	
Admitted during the year	5,098	
Born in hospital	613	
	<hr/>	6,097
Discharged	4,876	
Died	749	
Remaining in hospital on 31st December, 1932	472	
	<hr/>	6,097

Highest number of patients, 542—on 12th May, 1932.

Lowest number of patients, 385—on 1st January, 1932.

Daily average number during the year, 477.

I.—TABLE SHOWING HOW THE 5,711 CASES WERE ORIGINALLY ADMITTED.

By order of Relieving Officer	3,726
By Medical Superintendent	2,106
Births	613
Transfers from Middlesex County Council institutions or homes	166
Total	<hr/> 5,711 <hr/>

II.—TABLE SHOWING THE DISTRICTS FROM WHICH THE 5,711 CASES WERE ADMITTED.

Acton	712	Teddington	59
Brentford and Chiswick	1,064	Hendon	24
Ealing	1,291	Staines	18
Southall—Norwood	133	Sunbury	137
Heston and Isleworth	1,439	Feltham	11
Twickenham	787	Other districts of Middlesex	36
Total	5,711.		

III.—TABLE SHOWING WHITHER THE 5,625 PATIENTS WERE DISCHARGED.

Home	4,226
Middlesex County Council institutions or homes	292
Convalescent home	93
Other authorities' hospitals and institutions	21
Infectious diseases hospital	20
Sanatoria	62
Voluntary hospitals	11
Died	749
Duty (staff)	151
Total	5,625

DURATION OF STAY OF PATIENTS IN HOSPITAL.

Four weeks or less	3,745
Exceeding 4 weeks but under 13 weeks	1,450
Exceeding 13 weeks	430

IV.—TABLE SHOWING AGE AND SEX DISTRIBUTION OF PATIENTS WHO DIED DURING THE YEAR.

Ages.	Male.	Female.	Total.
Under 1 year	56	31	87
1-5 years	13	11	24
5-10 „	3	7	10
10-15 „	3	1	4
15-20 „	9	15	24
20-30 „	28	26	54
30-40 „	28	41	69
40-50 „	48	45	93
50-60 „	54	36	90
60-70 „	77	54	131
70-80 „	65	59	124
Over 80 „	19	20	39
Total	403	346	749

Deaths within 24 hours of admission	95
„ 48 „	52
„ 72 „	38
All other deaths	564
Total	749

V.—CLASSIFICATION OF DISEASES AND CONDITIONS FOR WHICH THE 5,625 PATIENTS WERE PRIMARILY TREATED.

Disease or Condition.	Males.			Females.			Children (under 16).			Total.
	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	
Births	—	—	—	—	—	—	665	—	—	665
Infants with mothers ..	—	—	—	—	—	—	66	—	—	66
No disease	2	—	—	1	—	—	3	—	—	6
Acute infectious diseases ..	2	1	2	13	2	1	157	3	13	194
Influenza	25	—	2	20	—	—	7	—	—	54
Tuberculosis—										
Pulmonary	79	13	40	49	9	32	—	—	1	223
Non-pulmonary	7	—	4	3	2	5	12	—	7	40
Rheumatism—										
Acute	31	—	—	23	—	2	14	—	—	70
Non-articular	15	1	—	16	—	—	7	—	—	39
Chronic arthritis	20	1	—	29	4	—	—	—	—	54
Venereal diseases	2	—	—	2	4	—	—	—	—	8
Diseases of the—										
Nervous system	38	12	8	51	16	5	31	—	12	173
Eye	4	—	—	2	—	—	5	—	—	11
Ear	8	1	—	6	—	—	46	—	2	63
Circulatory system	51	3	85	82	5	74	16	—	11	327
Blood, spleen and lymphatics	1	1	—	1	—	—	—	—	2	5
Respiratory system	145	—	51	98	—	32	111	—	30	467
Digestive system	244	2	36	242	2	20	100	—	14	660
Teeth and gums	11	2	—	13	1	—	5	—	—	32
Tonsils and/or adenoids	10	1	—	17	—	—	90	—	—	118
Diseases due to disorders of nutrition and metabolism	11	2	4	41	3	7	53	—	27	148
Diseases of the generative system	8	—	—	75	2	1	3	—	—	89
Normal and abnormal pregnancy, parturition and puerperium	—	—	—	987	2	7	—	—	—	996
Diseases of the organs of locomotion	12	—	2	19	1	—	5	—	—	39
Diseases of the skin and areolar tissue	101	2	4	95	1	3	111	2	1	320
Diseases of the urinary system	58	—	27	24	2	13	19	—	1	144
Injuries	159	1	10	108	1	18	60	1	5	363
Malignant disease	20	5	63	35	25	64	—	—	1	213
Malformation and cysts	6	—	—	7	2	—	2	—	—	17
Poisonings	3	—	—	2	1	—	—	—	—	6
Mental diseases	1	4	—	1	7	—	1	1	—	15
Totals	1,074	52	338	2,062	92	284	1,589	7	127	5,625
Grand Totals	1,464			2,438			1,723			

1. Department of Surgery.
ANALYSIS OF OPERATIONS PERFORMED DURING 1932.

Operations.	Major.	Minor.	Totals
On skin and superficial structures	3	403	406
On arteries, veins and lymphatics	—	1	1
On nerves	1	—	1
On bones and joints	37	160	197
On muscles, tendons, bursae and fasciae	1	1	2
Amputations	12	2	14
On skull, brain and spine	1	—	1
On face	—	—	—
On eye	—	—	—
On mouth, pharynx and oesophagus	—	—	—
On ear, nose and throat	32	123	155
On thyroid, accessory glands and neck	—	—	—
On breast	3	11	14
On thorax and contents	15	—	15
On abdominal wall and cavity	82	—	82
On stomach and duodenum	12	—	12
On intestine, rectum and anus	181	60	241
On liver, gall bladder, pancreas and spleen	6	—	6
On kidney and urinary tract	14	24	38
On male generative organs	3	20	23
Obstetric	8	—	8
On female generative organs	56	624	680
Unclassified	8	14	22
Grand totals	475	1,443	1,918

Dental extractions (142) are not included in the above.

Below is set out under anatomical headings information as to certain of the operations performed in the theatre during the year :—

On Skin and Superficial Structures (406)—

Under this heading is included a large number of dressings and minor treatments, the incision of abscesses (68), &c., and suturing of lacerations (35).

On Bones and Joints (197)—

Reduction of fracture by manipulation	160
Reduction of fracture by open operation	17
For osteomyelitis	14

On Abdominal Walls and Cavity (82)—

For inguinal and femoral hernia	46
For ventral and umbilical	8
Laparotomy exploratory and for adhesiolysis, peritonitis, &c.	28

On Stomach and Duodenum (12)—

Partial gastrectomy	1
Suture of perforated gastric or duodenal ulcer	9
Gastrostomy	1
Rammstedt's operation	1

Intestine, Rectum and Anus, and Biliary Passages (247) —

Appendicectomy without drainage	81
Appendicectomy with drainage	65
Drainage of appendix abscess	8
Resection and/or anastomosis of small intestine or colon	5
Enterostomy or colostomy	17
Cholecystectomy or cholecystostomy	6
Sigmoidoscopy	28
For hæmorrhoids	29

On Kidney and Urinary Tract (38)—

Nephrectomy	1
Nephrotomy	3
Cystostomy	10
Cystoscopy	20

Female Generative Organs (680)—

Total hysterectomy	4
Vaginal hysterotomy	1
Myomectomy	3
Oöphorectomy/salpingectomy	21
Curettage	32
Intra-uterine injection of glycerine	551

Analysis of Fractures and Dislocations treated to a Conclusion during the Year, their Nature, together with the Results of Treatment.

Bone or Joint.	Result of Treatment.							
	Simple.				Compound.			
	Good.	Fair.	Poor.	Died.	Good.	Fair.	Poor.	Died.
Skull—vault	7	—	—	—	1	—	—	—
Skull—base	1	—	—	1	—	—	—	—
Skull—bones of face	1	—	—	—	—	—	—	—
Vertebræ	3	1	—	—	—	—	—	—
Ribs	15	3	—	1	—	—	—	—
Clavicle	3	—	—	1	—	—	—	—
Scapula	2	—	—	—	—	—	—	—
Humerus	4	5	—	2	—	—	—	—
Radius or ulna, or both	10	2	—	1	1	—	—	—
Carpus, metacarpus or phalanges	1	—	—	—	1	1	—	—
Pelvis	4	1	—	—	—	—	—	—
Femur, neck or great trochanter	7	5	1	5	—	—	—	—
Femur, shaft or lower end	11	2	1	—	—	—	—	—
Patella	1	1	—	—	—	—	—	—
Tibia	11	—	—	—	1	—	—	—
Fibula	3	—	—	1	—	—	—	—
Tibia and fibula	25	9	—	—	4	—	1	—
Tarsus, metatarsus or phalanges	5	1	—	—	—	—	—	—
Multiple bony injuries	13	4	2	3	3	—	1	—
Fracture-dislocation, various	2	—	—	1	—	—	—	—
Dislocation, various	1	—	—	—	—	—	—	—
Separated epiphyses	4	1	—	—	—	—	—	—
Concussion	46	4	—	2	—	—	—	—
Injury to soft parts	40	6	—	—	18	3	—	2
Gun-shot wounds	—	—	—	—	1	—	—	—
	220	45	4	18	30	4	2	2

Total .. 325

2. Department of Anaesthetics.

Analysis of Anæsthetics administered during the year.

Chloroform, ether or mixture	..	..	..	..	..	817
Nitrous oxide ..	..	..	..	..	..	218
Nitrous oxide and oxygen	..	..	..	..	..	17
Nitrous oxide and ether	..	..	..	..	..	5
Spinal ..	..	..	..	..	..	5
Local ..	..	..	..	..	..	89
Total	..	..	..	..	..	1,151

3. Department of Radiology.

Number of patients—

In-patients	..	..	..	..	..	..	1,762
Out-patients	..	..	..	..	..	..	260
Total	..	..	..	..	..	..	2,022

Number of radiograms—

In-patients	..	..	..	..	..	..	4,358
Out-patients	..	..	..	..	..	..	375
Total	..	..	..	..	..	..	4,733

Number of treatments—

In-patients	..	..	..	..	..	..	195
Out-patients	..	..	..	..	..	..	120
Total	..	..	..	..	..	..	315

Analysis of investigations made during the year.

	Appearances.		
	Normal.	Abnormal.	Total.
Skull	67	42	109
Lungs and mediastinum	77	410	487
Pleura and pleural cavity	15	71	86
Heart and aorta	18	6	24
Lipiodol injection	1	10	11
Barium meal ..	43	76	119
Barium enema ..	36	33	69
Biliary tracts—			
(a) With shadocol ..	10	15	25
(b) Without shadocol	4	2	6
Urinary system	40	35	75
Pyelograms ..	16	18	34
Bones and joints—			
(a) For disease ..	92	262	354
(b) For deformity ..	107	460	567
Generative system	12	9	21
Foreign bodies ..	—	8	8
Teeth ..	10	17	27
Total ..	548	1,474	2,022

4. Electrical Department.

Number of patients treated	778
Number of attendances	17,725
Number of treatments	26,265

Analysis of Treatments.

Diathermy	3,409
Galvanism	2,349
Faradism	519
Sinusoidal alternating current	1,144
Radiant heat	3,123
Ultra-violet light	10,460
Examinations	1,834
Dressings	3,427
Total.. .. .	26,265

5. Massage Department.

Number of Treatments.

	Medical.	Surgical.	Total.
West Middlesex County Hospital	5,232	12,423	17,655
Warkworth House	925	111	1,036
Out-patients	858	1,441	2,299
Total	7,015	13,975	20,990

6. Queen Mary Maternity Wing.

*From 14th February to 31st December 1932.**Ante-natal clinic.*

Number of sessions	205
Number of patients	768
Number of attendances	2,653
Average number of attendances per session	13
Average number of attendances per expectant mother	3.5
Number of patients needing special treatments	640

Admissions.

		Per cent.
Via ante-natal clinic	522	81.8
Not via ante-natal clinic	116	18.2
Total.. .. .	638	100

Civil state—

Married	572	89.7
Unmarried	66	10.3
		100

Parous state—

Primiparæ	319	50
Multiparæ	319	50
		100

<i>Presentation.</i>								
Vertex .. .. .	..	..	..	..	..	..	..	560
Face .. .. .	..	..	..	..	..	..	..	3
Breech .. .. .	..	..	..	..	..	..	..	42
Transverse .. .. .	..	..	..	..	..	..	..	3
								608
Twins (pairs) .. .. .	..	..	..	..	..	..	..	9
Born before admission .. .. .	..	..	..	..	..	..	..	21
								30
Total								638

Table showing the method of delivery of the babies born in the department.

Method of Delivery.	No.	Deaths.		
		Maternal.	Fœtal.	Neo-natal.
Natural forces	595	3*	19†	14*
Natural forces after induction	15	1	6	1
Forceps	15	—	3	2
Forceps after induction	1	1	1	—
Version	10	—	5	—
Cæsarian section	3	—	—	1
Total	639	5	34	18

* 1 Born before admission. † 2 Born before admission.

Medicinal inductions	15
Surgical inductions	1

								Cases.
Delivered by midwives .. .. .	..	..	..	..	..	..	..	592
Delivered by doctors .. .. .	..	..	..	..	..	..	..	30
Midwife sought medical assistance in .. .. .	..	..	..	..	..	..	..	136
Anæsthetics given for obstetric purposes .. .. .	..	..	..	..	..	..	..	41

<i>Labour.</i>								Per cent.
Normal .. .. .	..	..	..	..	..	..	..	574 90·0
Abnormal .. .. .	..	..	..	..	..	..	..	55 8·6
Multiple .. .. .	..	..	..	..	..	..	..	9 1·4
Total								638 100

<i>Birth.</i>								Per cent.
Full time .. .. .	..	..	..	..	..	..	..	541 84·8
Premature .. .. .	..	..	..	..	..	..	..	63 9·9
Still-born .. .. .	..	..	..	..	..	..	..	34 5·3
Total								638 100

Average weight at birth—			
Ante-natal clinic infants .. .. .	..	..	6 lbs. 12 ozs.
Non-ante-natal clinic infants .. .. .	..	..	6 lbs. 8¼ ozs.
Infants not entirely breast fed .. .. .	..	..	36
Average duration of stay in hospital .. .. .	..	..	14 days

Puerperal Pyrexia.

Cause.	Number of Cases.	
	Ante-natal Clinic.	Non-ante-natal Clinic.
Pleurisy	—	2
Urinary infection	2	1
Post-partum hæmorrhage	1	—
Constipation	1	—
Blood transfusion	1	—
Mastitis	2	1
Breast abscess	1	—
Vaginal discharge	3	—
Phlebitis	1	—
Sapræmia	1	1
Puerperal fever	—	1
Reactionary	2	1
Unexplained	1	—
	16	7

Still-births.
Details of 31 still-births.

Number of Cases.	Method of Delivery.	Causation.	Full Term.	Premature.
19	Normal	Toxæmia of mother	3	1
		Eclampsia	—	1
		Toxic ante-partum hæmorrhage	—	3
		Following induction of labour	2	—
		Prolonged labour	2	—
		Macerated foetus	—	2
		Anencephaly	—	1
		Prolapsed cord	1	—
		Prematurity	—	1
		Post maturity	2	—
4	Forceps	—	4	—
3	Extended breech	—	3	—
5	Version	Placenta prævia	—	4
		Cord and arm presentation, macerated foetus	1	—

Neo-Natal Deaths.

Number of Infants.	Method of Delivery.	Maternal Complications.	Cause of Death.	Age.
1	Normal	—	Patent foramen ovale	2 days.
1	„	—	Prematurity	3½ hours.
1	„	Albuminuria	Patent foramen ovale	3 days.
1	„	—	Fœtal ascites	6 days.
1	„	Induction	Patent foramen ovale	6 days.
1	„	—	Premature	14 hours.
1	„	—	Prematurity (14 ozs.)	15 hours.
1	„	—	Cleft palate and deformed tongue	18 days.
1	Cæsarian	Small pelvis	Spina bifida	5 weeks.
1	Breech	—	Prematurity and hydrocephalus	2 days
1	Extended breech	—	Asphyxia neonatorum	2 mins.
1	Obstructed breech	—	—	4 days.
1	Born before admission	—	Prematurity	4 hours.
1	Twin delivery	Eclampsia... ..	Prematurity	5 minutes.
1	„	Pre-eclampsia	Prematurity and cleft palate	9 days.
1	„	—	Prematurity	5 hours.
1	Forceps	Eclampsia	Prematurity	3 days.
1	„	—	—	1½ hours.
18				

Pathological Examinations at various Laboratories during 1932.

General.

Blood—full count	188
„ white cell count	3
„ Widal reaction T.A.B.	21
„ Other agglutinative tests	4
„ Wassermann reaction	1,026
Urine	266
Fæces	55
Fluid exudates	82
Hairs for ringworm	25
	<hr/> 1,670

Bacteriological.

Sputum for tubercle bacilli	414
Swabs for K.L.B.	448
Swabs for other organisms	89
Animal inoculations	44
Blood cultures	13
Cerebro-spinal fluid	114
Urine	74
Fæces	35
Pus	164
Sputum	58
Films for gonococci	177
Preparation of vaccines	6
	<hr/> 1,636

Bio-chemical Examinations.

Blood—sugar estimation	52
„ urea estimation	126
„ Van den Bergh	7
„ calcium content	2
Urine	141
Fæces	22
Fractional test meals	77
Miscellaneous	5
	<hr/> 432

Total	<hr/> 3,738
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Nurses' Training School.

Results of Examinations during 1932.

—	Entered.	Passed.	Failed.
State Preliminary	30	29	1
State Final	29	28	1
Central Midwives Board	15	15	—
County Nurses Examination*	29	27	2

* Silver medals	3
Pass with honours	3
Pass with credit	15
Pass	6
Failed	2

APPENDIX V.

ANNUAL REPORT ON THE WORK OF HILLINGDON COUNTY HOSPITAL DURING
1932. PREPARED BY THE MEDICAL SUPERINTENDENT.

The work on the surgical side of the Hospital has increased greatly during the year, and it is interesting to note that of all major operations 36·5 per cent. were surgical emergencies.

During the year, alterations have been completed in the old hospital block, and the wards equipped so that there is a maternity unit of twelve beds, labour room, baby room and isolation room; a children's ward of eight cots, a male medical ward and a female medical ward, each of seventeen beds. The new hospital block is now solely used for surgical cases. The operating theatre, situated in the old hospital block, has been refloored and a first-class operating table installed.

It has been found necessary to use the isolation block throughout the year.

Pari passu with the increase in accommodation, the work of the special departments has increased. This is shown in the augmented attendances at the ante-natal clinic, massage department and out-patient department. Further, it has been found necessary to create an orthopædic clinic for the numerous fracture cases discharged from the wards or seen in the out-patient department and not admitted. This clinic is held once weekly on Friday afternoons.

The work in the x-ray department has steadily increased and the appointment of a full-time radiographer has been made.

In conjunction with the massage department, provision has been made for artificial sunlight treatment. This physio-therapy unit is staffed by a full time masseuse who is the sister-in-charge, and a part-time blind ex-service masseur.

Progress in the training school for nurses is marked. At a recent State Preliminary Examination six candidates presented themselves and five passed. The school is yet too young to have prepared nurses for final examination.

STAFF.

(as on 31st December, 1932).

MEDICAL.

Medical Superintendent—

R. Rutherford, F.R.C.S. (Eng.).

Assistant Medical Officers—

R. G. Macbeth, B.A., B.M., B.Ch.

J. H. Follows, M.D.

NURSING.

Matron—Miss E. S. Laing.

Nurses—73.

STATISTICAL TABLES FOR THE YEAR ENDED 31st DECEMBER, 1932.

Number of patients remaining in hospital on 1st January, 1932	..	..	..	64	
Number of patients admitted during the year 1932	..	..	..	1,882	
Born in hospital	..	..	..	150	
					2,096
Number of patients discharged from hospital during the year 1932	..	..	..	1,850	
Number of deaths	..	..	..	140	
					1,990
Number of patients remaining in hospital on the 31st December, 1932	..	..	..	106	

TABLE SHOWING HOW THE 2,032 PATIENTS WERE ADMITTED.

By Medical Superintendent	786
By Relieving Officer	1,004
By birth	150
By police (other than accident)	13
By police (accident)	56
Transferred from other authority	23
	<hr/>
	2,032
	<hr/>

TABLE SHOWING THE PARISHES TO WHICH THE 2,032 PATIENTS TREATED BELONGED.

Uxbridge	126
Hillingdon East	502
Hillingdon West	118
Harefield	37
Cowley	33
Ickenham	12
West Drayton	84
Yiewsley	142
Ruislip	41
Northwood	4
Eastcote	9
Southall	21
Norwood	431
Hayes	443
Other districts.. .. .	29
	<hr/>
	2,032
	<hr/>

TABLE SHOWING WHITHER THE 1,990 PATIENTS WERE DISCHARGED.

To own, relatives' or friends' home	1,681
House Section, Hillingdon	14
Bartram Lodge	6
Other Poor Law institution	10
Convalescent home	43
Fever hospital	16
Springfield Mental Hospital	4
Non-Poor Law general hospital	1
Sanatoria	25
Casual ward	29
Duty (nursing staff)	20
Prison, or in custody	1
Deaths	140
	<hr/>
	1,990
	<hr/>

Deaths.

Deaths within 24 hours of admission	27	
Deaths within 48 hours of admission	..	..	..	7	
Deaths within 72 hours of admission	..	..	..	9	
				—	43
All other deaths	..	..	..	..	97
					—
					140
					—

CLASSIFICATION OF THE DISEASES AND CONDITIONS FOR WHICH THE 1,990 PATIENTS WERE
PRIMARILY TREATED.

Disease or Condition.	Children (under 16 years of age).		Men and Women.	
	Discharged.	Died.	Discharged.	Died.
Acute infectious disease	26	—	11	3
Influenza	—	—	10	—
Tuberculosis—				
Pulmonary	2	—	22	9
Non-pulmonary	8	3	13	3
Malignant disease	—	—	9	12
Rheumatism—				
Acute rheumatism (rheumatic fever), together with sub-acute rheuma- tism and chorea	13	2	5	—
Non-articular manifestations of so- called “rheumatism” (muscular rheumatism, fibrositis, lumbago and sciatica)	—	—	1	—
Chronic arthritis	—	—	3	—
Puerperal pyrexia	—	—	10	—
Puerperal fever—				
(a) Women confined in hospital ..	—	—	3	—
(b) Admitted from outside	—	—	1	—
Other diseases and accidents connected with pregnancy and childbirth	—	—	123	8
Mental diseases—				
(a) Senile dementia	—	—	—	—
(b) Other	4	—	7	—
Accidental injury and violence	42	6	161	13
Disease of the nervous system and sense organs	9	3	15	4
,, respiratory system	36	8	53	6
,, circulatory system	2	4	41	10
,, digestive system	422	5	210	12
,, genito-urinary system	25	—	81	8
,, skin	19	—	7	—
Other diseases	105	6	81	9
Mothers and infants discharged from maternity ward and not included in above figures	144	6	126	—
Totals	857	43	993	97

Mortality rate—7 per cent.

THE WORK OF THE SPECIAL DEPARTMENTS.

1.	Surgical	Major operations	504	
		Minor operations	1,321	
				1,825
2.	Anæsthetics	General	1,194	
		Spinal	83	
		Local	230	
				1,507
3.	Dental	Treatments	107	
4.	Radiological	Patients investigated	493	
		Investigations	849	
5.	Massage	Treatments	953	
6.	Maternity	Women examined at ante-natal clinic	265	
		Attendances at ante-natal clinic	518	
		Births	162	
		Obstetric operations	113*	
7.	Pathological investigations	At Hillingdon County Hospital	542	
		Elsewhere	300	
				842
8.	Ear, Nose and Throat	Operations	609*	
9.	Casualty and Out-Patient	Total patients	1,959	
		Attendances	6,113	
		Minor operations	337*	
10.	Nurses' Sick Room	Admissions	42	

* Included above under 1.

DEPARTMENT OF SURGERY.

ANALYSIS OF OPERATIONS PERFORMED DURING THE YEAR.

Operations.	Major.	Minor.
Spinal cord and meninges	—	42
Brain and skull	2	3
Peripheral nerves	2	1
Eye	—	1
Ear, nose and throat	125	484
Orthopædic	41	104
Lymphatic system	3	6
Skin and areolar tissue	8	264
Blood vessels	24	58
Glandular structures	4	17
Gastro-intestinal tract	170	45
Gynæcological	29	8
Obstetric	47	66
Genito-urinary	41	181
Respiratory system	8	41
	504	1,321

Of the above minor operations, 337 were performed in the out-patient department.

	Per cent.
Mortality in major operations	5·3
Gross operative mortality	1·3

DETAILS OF OPERATIONS PERFORMED.

Spinal Cord and meninges (42)—

Spinal drainage	41
Injection lumbar enlargement	1

Brain and skull (5)—

Cisternal puncture	3
For cerebellar abscess	1
Temporal decompression	1

Peripheral nerves (3)—

Evulsion phrenic nerve	1
Primary suture median nerve	1
Injection sacral plexus	1

Eye (1)—

For foreign body	1
--------------------------	---

Ear, Nose and Throat (609)—

Laryngoscopy and biopsy	1
Bronchoscopy	10
Oesophagoscopy	1
Frontal sinus puncture	1
Antrum puncture	24
Antrostomy	3
Catheterisation Eustachian tubes	4
Submucous resection	6
For fractured nasal bones	1
For adenoids	12
Tonsillectomy (dissection)	72
Tonsillectomy (guillotine)	353
For quinsy	7
For secondary hæmorrhage	2
Tracheotomy	3
Mastoidectomy—	
simple	39
complicated	5
radical	4
with intracranial complications	1
Mastoid dressing	26
Myringotomy	34

Orthopædic (145)—

For internal semilunar cartilage	2
Biopsy knee joint	1
For tuberculous arthritis	2
Excision of knee joint	1
Arthrotomy	5
For dislocations	10
For ankylosis	3
For septic arthritis	5
Fracture dislocation	1
Excision prepatellar bursa	1
For bursitis	3
For fracture	80
Wiring fractured patella	2
Fracture plating	1
For fractured spine	1
Excision head of radius	1
Dunn's tarsectomy	1

Orthopædic (145)—contd.

For talipes	2
For deformities	6
Amputation	3
For osteomyelitis	9
Ganglionectomy	2
Tendon suture	1
For torticollis (tenotomy open)	1
For septic tenosynovitis	1

Lymphatic System (9)—

For cervical adenitis	4
Dissection glands of neck	2
Dissection axillary glands	1
Dissection inguinal glands	1
For ranula	1

Skin and Areolar Tissue (272)—

For coccygeal dermoid	1
Biopsy ulcer	1
Plastic to eyelid	1
Plastic for mastoid	3
Plastic for burn scars	2
Skin graft to wound	1
Excision rodent ulcer	1
Epithelioma ear	1
For Meibomian cyst	1
For cyst of lip	1
For wounds	97
For sepsis	161
Removal of nail	1

Blood Vessels (82)—

Ligature internal jugular vein	1
Ligature radial artery	1
Ligature ulnar artery	2
Ligature external iliac artery and vein	1
Blood transfusion	21
For phlebitis	11
Venesection	29
For nævus	16

Glandular structures (21)—

For submaxillary calculus	1
For acute thyroiditis	1
For retrosternal goitre	1
For breast abscess	14
Breast—local removal	2
For fibro-adenoma breast	1
For cancer of breast	1

Gastro-intestinal tract (215)—

For alveolar abscess	1
Oesophagoscopy	1
Perforated gastric ulcer	9
Perforated duodenal ulcer	1
Gastro-enterostomy	3
Gastrostomy	2

DETAILS OF OPERATIONS PERFORMED—*continued.*

<i>Gastro intestinal tract (215)—contd.</i>					<i>Obstetric (113)—</i>				
Appendicectomy	73	Cæsarean section	4						
Appendicostomy	3	For ectopic gestation	2						
Appendicotomy	3	Evacuation of uterus	43						
For ileus	1	Induction by bougies	8						
For inguinal hernia	16	Rupture of membranes	5						
For femoral hernia	4	Internal version	4						
For femoral hernia strangulated	6	Forceps delivery	7						
Anastomosis for obstruction	3	For prolapsed cord	2						
For obstructed inguinal hernia	1	External version	1						
For hernia by fascial graft	6	Episiotomy	2						
For intussusception	2	Manual removal of placenta	7						
Colotomy	8	Perineorrhaphy	25						
Colostomy	7	For hydramnios	1						
Cæcostomy	1	Intrauterine medication	2						
Cholecystectomy	11	<i>Genito-Urinary System (222)—</i>							
Laparotomy	7	Nephrectomy	4						
Excision of rectum	1	Transplantation of ureter	1						
Excision of sigmoid	1	Catheterisation of ureters	19						
For stricture rectum	1	For ureteric calculus	1						
For hæmorrhoids	10	Pyelography	6						
Examination under anæsthetic	3	Cystoscopy	29						
For anal fissure	1	Chromo-cystoscopy	4						
For fistula in ano	5	Suprapubic cystostomy	6						
For ischio rectal abscess	3	Perineal cystostomy	1						
Sigmoidoscopy	7	Prostatectomy	9						
Paracentesis abdominis	14	Morcellement of prostate	2						
<i>Gynæcological (37)—</i>		Urethrotomy internal	1						
For hæmatocolpos	1	For urethral stricture	31						
For urethral caruncle	1	For congenital urethral stricture	1						
For ovarian cyst	1	For peri-urethral abscess	1						
Myomectomy	1	Circumcision	89						
For placental polyp	1	For paraphimosis	2						
Ventrosuspension-Gilliam	3	For undescended testis	1						
Hysterectomy	4	Orchidectomy	4						
Salpingectomy (sterilisation)	1	For hydrocœle	9						
Salpingostomy	1	For epithelioma scrotum	1						
Laparotomy and posterior colpotomy	1	<i>Respiratory System (49)—</i>							
Examination under anæsthesia	5	For empyema	9						
Uterine curettage	14	Paracentesis thoracis	36						
Tubal insufflation	1	Thoracotomy for carcinoma of lung	1						
Anterior colporrhaphy	1	Intrapulmonary lipiodol	2						
For recto-vaginal calculus	1	Artificial pneumothorax	1						

Emergency Surgery.

Of the *major* operations performed in the hospital during the year and included in the above figures, 184 (or 36·5 per cent.) may be classified as surgical emergencies.

Details of these are as follows:—

<i>Acute abdominal—</i>								
Appendix	...	...	...	...	...	...	...	62
Perforated peptic ulcer			...	...	...	...	...	10
Gall bladder	...	...	...	...	...	...	...	6
Intestinal obstruction	...	...	...	...	...	...	...	13
								91
<i>Other—</i>								
Blood vessels	...	...	...	...	...	...	...	1
Blood transfusion		...	...	...	...	...	...	21
Genito-urinary		...	...	...	...	...	...	4
Orthopædic	...	...	...	...	...	...	...	15
Obstetric	...	...	...	...	...	...	...	36
Mastoid ...	...	...	...	...	...	...	...	14
Oesophagoscopy		...	...	...	...	...	...	1
Gynæcological	...	...	...	...	...	...	...	1
								93
								184

DEPARTMENT OF ANÆSTHETICS.

General Anaesthesia—

Chloroform, ether, &c.	990	
Nitrous oxide and oxygen	200	
Avertin..	4	
					—	1,194

<i>Spinal Anaesthesia</i>	83
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Local Anaesthesia—

Infiltration and nerve block	150	
Mucous membrane application	80	
				—	230

1,507

DEPARTMENT OF RADIOLOGY.

ANALYSIS OF RADIOLOGICAL INVESTIGATIONS.

Skull and contents	..	..	..	..	..	..	21
Lungs and mediastinum	..	..	..	..	..	..	87
Pleuræ and pleural conditions	..	..	..	..	..	..	8
Heart and aorta	..	..	..	..	..	..	12
Œsophagus, stomach and intestine	..	..	..	..	..	..	18
Biliary passages	..	..	..	..	..	..	1
Urinary system	..	..	..	..	..	..	63
Generative system	..	..	..	..	..	..	6
Bones and joints for injury	..	..	..	..	..	..	480
Bones and joints for disease	..	..	..	..	..	..	78
Miscellaneous	..	..	..	..	..	..	22
							—
							796

SPECIAL METHODS OF INVESTIGATION.

Barium meals	..	..	..	..	..	..	37
Barium enemata	..	..	..	..	..	..	6
Lipiodol injection	..	..	..	..	..	..	5
Cholecystograms	..	..	..	..	..	..	1
Pyelograms	..	..	..	..	..	..	4
							—
							53
Number of in-patients investigated	..	..	..	..	..	..	255
Number of out-patients investigated	..	..	..	..	..	..	238
							—
							493

MATERNITY DEPARTMENT.

Ante-Natal Clinic.

Ante-natal sessions held	..	..	..	..	..	52
Expectant mothers examined	..	..	..	..	..	265
Total attendances	..	..	..	..	..	518
Average number seen per session	..	..	..	..	..	10

Analysis of the 160 deliveries which took place during the year.

					No.	Per cent.
Mother admitted	..	Via ante-natal clinic	..	..	96	60
		Not via ante-natal clinic	..	..	64	40
Civil state	..	Married	..	..	138	86
		Unmarried	..	..	22	14
Parous state	..	Primipara	..	..	74	46
		Multipara	..	..	86	53
Presentation	..	Normal	..	..	144	90
		Abnormal	..	..	16	10

There were two sets of twins.

Method of Delivery.	No. of Births.	Deaths.		
		Maternal.	Foetal.	Neo-natal.
Natural forces	142	3	9	4
Natural forces after induction	8	—	—	—
Forceps	5	2	2	2
Decapitation	1	1	1	—
Cæsarean section	4	1	—	—
Embryotomy	2	—	—	—
Total	162	7	12	6

Delivered by midwives	..	..	..	..	136 cases
Delivered by doctors	..	..	..	..	24 cases

				No.	Per cent.
Labour	..	Normal	..	127	79·4
		Abnormal	..	31	19·4
		Multiple	..	2	1·2
Birth	..	Full time	..	141	87·0
		Premature	..	16	9·9
		Stillborn	..	5	3·1
Infants not entirely breast fed					16
Average length in days of lying-in period					14

Maternal Morbidity.

	Ante-natal clinic.	Non-ante-natal clinic.	Total.
Deliveries	96	64	160
Pyrexial cases	3	6	9
Deaths	3	4	7

Pyrexial Cases.

Live births.	Still births.	Mode of delivery.	Causation.	Number of cases.	
				Ante-natal clinic.	Non-ante-natal clinic.
1*	—	Natural forces ..	Sapræmia	—	1
—	1	„ ..	„	—	1
1	—	„ ..	Septicæmia	—	1
—	1	„ ..	„	—	1
1	—	„ ..	Reaction	1	—
—	1	Forceps	Sapræmia	—	1
1	—	„	Septicæmia	—	1
1	—	„	Influenza	1	—
1	—	Operative ..	Reaction	1	—
6	3	—	—	3	6

* Not delivered in the Hospital.

Maternal Deaths.

Live births.	Still births.	Mode of delivery.	Maternal complication.	Number of cases.	
				Ante-natal clinic.	Non-ante-natal clinic.
1	1	Natural forces ..	Acute yellow atrophy	—	1
1	—	„ ..	Pulmonary phthisis	1	—
1	—	„ ..	Post-partum hæmorrhage ..	1	—
1	—	Forceps	Pulmonary embolus	—	1
—	1	„	„	—	1
—	1	Operative	Difficult labour and toxæmia..	—	1
1	—	„	Mitral stenosis	1	—
5	3	—	—	3	4

Total maternal deaths	.. .. .	7	
Maternal mortality	.. .. .	4·3 per cent.	
Infant mortality—		No.	Per cent.
Infants—born and survived	.. .. .	144	88·9
Infants—stillborn	.. .. .	12	7·4
Infants—born and died	.. .. .	6	3·7

Infant mortality—11·1 per cent. of all infants born ; 4 per cent. of infants born alive.

Stillbirths.

Details of 12 stillbirths.

No. of Infants.	Method of delivery.	Causation.	Mother.		Infant.	
			Primipara.	Multipara.	Full term.	Premature.
9	Natural forces	Placenta prævia Toxæmia of pregnancy Prolapsed cord Fœtal exhaustion	— 1 1 —	2 1 1 3	1 1 1 1	1 1 1 2
1	Forceps	Toxæmia of pregnancy	1	—	1	—
2	Operative	Birth injury Hydrocephalus	— 1	1 —	1 1	— —
12	—	—	4	8	7	5

Neo-natal deaths.

Details of 6 neo-natal deaths.

No. of infants.	Method of delivery.	Maternal complications.	Cause of death.	Age.
1	Natural forces, rapid labour	Albuminuria	Tentorial tear and hæmorrhage	1 day.
1	" " " "	" "	" "	2 hours.
1	Natural forces	—	Prematurity	2½ hours.
1	" " " "	—	White asphyxia	2 hours.
1	Forceps	Eclampsia	Prematurity	3 minutes.
1	" " " "	—	Tentorial tear	1 day.
6				

Summary of causes of death.

Prematurity	..	..	..	..	..	2
Birth injury	..	..	..	..	..	4
Total	..	..	..	..	..	6

Labours in amnesia.

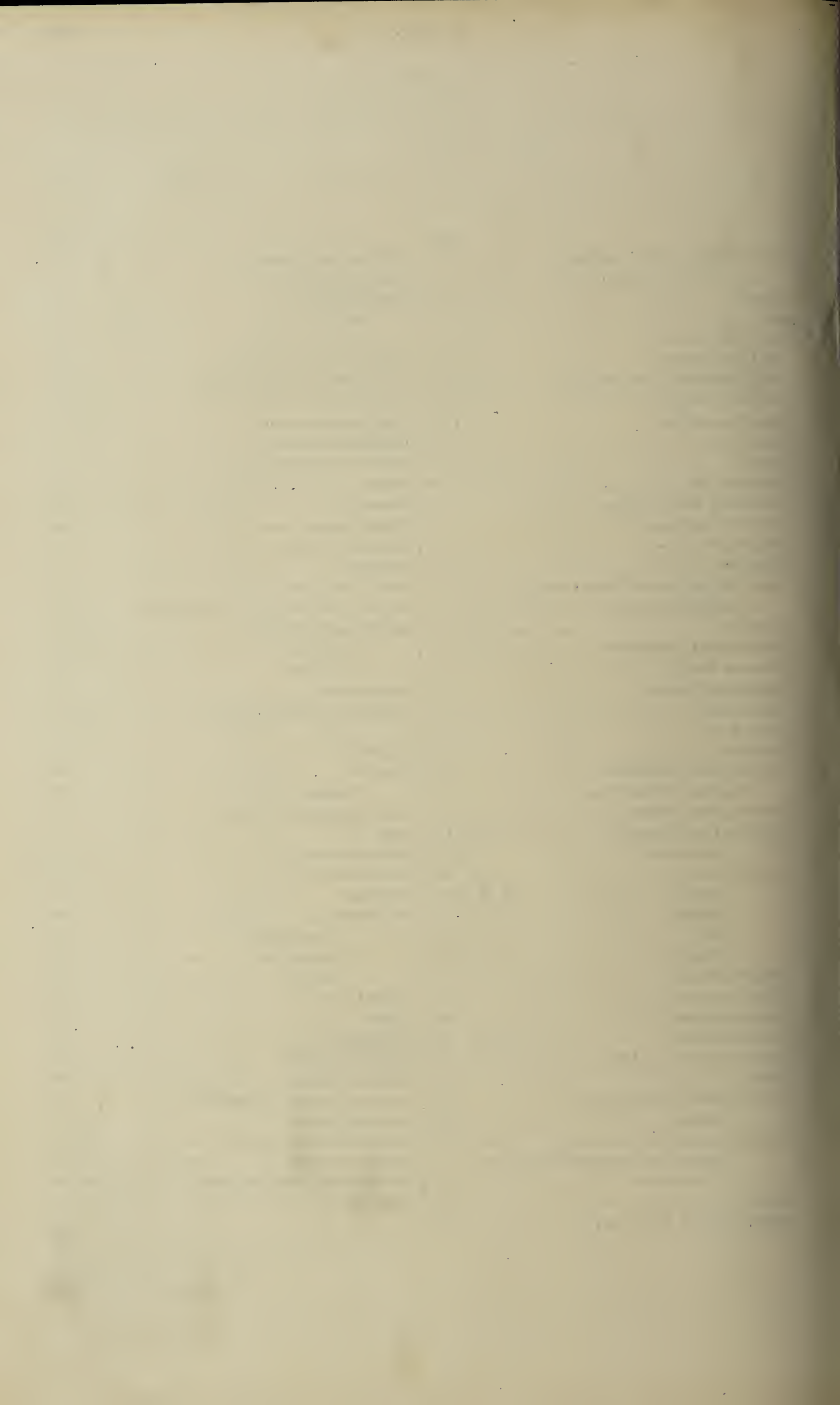
Avertin	..	..	..	..	..	4
Hyoscin	..	..	..	..	..	3
Total	..	..	..	..	..	7

COMPARATIVE STATISTICS.

	1931.	1932.
Number of discharges	1,208	1,990
Mortality, per cent.	9·2	7·0
Confinements	65	160
Out-patients	788	1,959
Out-patient attendances	1,307	6,113
Surgical operations (excluding dental extractions)	967	1,825
Operative mortality, per cent.	3·5	1·3
Patients per occupied bed	17	21

I N D E X .

	PAGE		PAGE
Ante-natal clinic, central consultative	52	Midwives Acts, administration of	41
„ clinics at welfare centres	49	Midwives, provision of	52
Anthrax	61	Milk, condensed	57
Area	1	„ dried	57
Births and birth-rates	2, 42	„ production	54
Blind, welfare of the	40	Natural and social conditions	1
Central Middlesex County Hospital	11, 18, 148	North Middlesex County Hospital	10, 15, 89
Cerebro-spinal fever... ..	60	Nursing Homes	46
Chase Farm Schools	11, 17	Ophthalmia neonatorum	45, 51, 60
Children Act	53	Ophthalmic treatment	51
Cholera	61	Out-relief, medical, Poor Law	14
Continued fever	61	Plague	61
Convalescent Home, Edgbury	17	Pneumonia	60
Deaths and death-rates	3	Polioencephalitis, acute	60
Dental treatment	51	Poliomyelitis, acute	60
Diphtheria	58	Population	1
District Medical Officers (Public Assistance) ...viii,	14	Public Vaccinators	viii
„ Nursing Associations	14	Puerperal fever and puerperal pyrexia	43, 52, 60
Dysentery	60	Redhill County Hospital	12, 19, 118
Edgbury Convalescent Home	17	„ Institution	12, 20
Edmonton House	11, 16	„ Men's Home	12
Encephalitis lethargica	60	Relapsing fever	61
Enfield House	11, 16	Sanatorium, County, Clare Hall	vii, 73
Enteric fever... ..	58	„ „ Harefield	vii, 69, 71
Erysipelas	61	Scarlet fever	58
Food and drugs, adulteration	56	Smallpox	58
„ inspection and supervision	54	„ hospitals	64
Fortescue Villas, Enfield	16	Social conditions, natural and	1
Hillingdon County Hospital	12, 21, 175	Staff	v
„ Institution	12, 22	Staines Institution	14, 22
Hospitals, fever	64	Statistics, summary of	x
„ general	14, 23, 26, 88	Still-births	3, 43
„ smallpox	64	Tuberculosis	64
„ staff	vi	„ dispensaries	69
„ voluntary	29	„ institutions	69
Infantile mortality	6	„ scheme	69
Infant life protection	53	Typhoid fever	58
Infectious diseases	58	Typhus	61
Isolation hospitals	64	Vaccination	61
Local Government Act, 1929	10	Vaccinators, Public	viii
Malaria	61	Venereal diseases	85
Maternal deaths, investigation of	52	Veterinary inspection of dairy herds	54
„ mortality	8, 43	Voluntary hospitals	14, 29
Maternity and child welfare scheme	48	Warkworth House, Isleworth	14, 21
„ Departments, General Hospitals and		Welfare centres, list of	50
„ Institutions	24	West Middlesex County Hospital	12, 20, 164
Measles	60	White Webbs	11
Medical out-relief (Poor Law)	14		





Administrative County of Middlesex

ANNUAL REPORT

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